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ABSTRACT

The authors of this volume divide their consideration of decision-making into three major areas: 1) a step-by-step analysis for a systematic decision-making process that has widespread application; 2) an explicit description of the legal and extralegal components of the current decision-making structure; and 3) a review of some changing concepts of learning, content and process, and evaluation to illustrate the kinds of controversial questions that are demanding attention and decisions in schools across the country. The legal structure of education includes the federal government, the state, and the local school district, while the extralegal structure includes political pressure groups, formal organizations and informal influences which may come from individuals or groups working behind the scenes. The changing concepts of learning which are considered include new attitudes toward IQ tests, educational and developmental psychology, programed instruction, the use of chemicals to stimulate learning, and student motivation. Other topics include remedial reading programs, standarized tests as a measure of student achievement, the planning, programing and budgeting system, merit pay, techniques to be used in evaluating teachers, and identification of those who should apply these techniques. (This is one of a series, "Schools for the 70's-- and Beyond." Related documents are ED031 452, ED037 405, ED038 332 and SP004 197.) (MBM)

DECISION MAKING AND SCHOOLS FOR THE 70's

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FOREWORD

Decision Making and Schools for the 70's is the first publication of the preliminary series of SCHOOLS FOR THE 70's—AND BEYOND, a major publication and action program of the National Education Association's Center for the Study of Instruction (CSI). Addressed mainly to the teaching profession and the public, this preliminary series provides a forum for respected authors to speak to the major issues confronting educators today.

The SCHOOLS FOR THE 70's program has two other parts: an auxiliary series* addressed primarily to curriculum specialists and to university and school researchers, and a comprehensive, single-volume, multimedia report and action program. The comprehensive, single-volume major report is based on questions raised in the preliminary and auxiliary series, additional studies, and information gathered from seminars with students, teachers, university specialists, and others. Its five major concerns are (1) the urgency of school reform, (2) the need to humanize the school environment, (3) the question of governance and accountability, (4) the responsibility of the organized profession to improve schools, and (5) the role of negotiation in instructional improvement. The major volume is scheduled for publication late in 1970.

Obviously, the authors of this volume on decision making are examining a matter intrinsic to the entire range of the 70's program. Any objective search for reliable answers to basic problems in education will depend on wise decision making about school programs. In this volume, the authors make three significant contributions to the

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*The four published volumes of the auxiliary series include *The Study of Curriculum Plans* by Arlene Payne; *The Practical: A Language for Curriculum* by Joseph J. Schwab; *A Selected Guide to Curriculum Literature: An Annotated Bibliography* by Louise L. Tyler; and *Values and the Curriculum—A Report of the Fourth International Curriculum Conference* edited by William G. Carr.

decision-making issue: first, they present a step-by-step analysis of a systematic decision-making process that has widespread application; second, they provide an explicit and thoughtful description of the legal and extralegal components of the current decision-making structure in education; and third, they review some changing concepts of learning, content and process, and evaluation to illustrate the kinds of controversial questions that are demanding attention and decisions in schools across the country. Their case studies are particularly illustrative of the current school scene, and few readers will fail to come away with better ideas about ways to approach school problems.

Ole Sand, *Director*
Center for the Study of Instruction
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PROLOGUE

"TGIF"

It had been quite a day at the end of quite a week. As assistant principal, Jerry Reed knew that he was expected to cope and watch the store, but at the moment he felt particularly frustrated. His day and his week seemed to be made of an endless stream of disciplinary problems, complaining teachers, unreasonable requests from everyone, and apparently unanimous dissatisfaction with whatever he had done.

As he passed through the outer office, he told the secretary: "I'm going to have a cup of coffee and if anyone wants me, say I'm on a teacher exchange program in Afghanistan!"

It was the last period of the day on Friday. A half dozen teachers had gathered to use the coffee pot as a decompression chamber. The conversation around him made Jerry wonder if someone had been reading his mind.

"I don't think I've accomplished a thing this week," exclaimed Sally King. "I feel more like a sheep dog than a teacher. All I do is bark at students and snap at their heels to try to keep them moving."

"Well, either they're off base or we are," said Martha West. "The kids and I seem to have entirely opposite ideas about what we're here for. You know, Jerry, I'd like to have a staff meeting like this group, one where we could relax and unload and try to figure out what our job is. I'm so frustrated I could scream."

"But we've tried that," snapped Al Flench. "All we do is end up pontificating educational clichés like 'Making the world safe for democracy' and 'Teaching the whole child,' and all that. But it doesn't seem to make any difference. We want to help kids, we want to 'do good,' but we get lost between our intentions and our lectures."

"I agree!" Martha said with an uncharacteristic vehemence. "But why do we? What are we supposed to be doing? Does it really matter whether a 15-year-old knows the difference between an adverb and an apparition? We need to be able to decide what's important, but we keep getting lost in nit-picking and verbal hairsplitting. What's worth the effort and what's a saber-toothed exercise?"

"I think I can answer that," replied Jerry. "We need a systematic method for solving problems. If we had one, we would have a way of both identifying and solving our problems. At the moment, however, I agree with Martha. I don't know what I should be doing, but I'm unhappy with what I do. What questions should we deal with, and how should we attack them?"

Decision Making deliberately sets out to raise questions that are presently unanswered. The authors particularly wish to pose problems that will channel the explorations of SCHOOLS FOR THE 70's, not to provide answers that will establish the known world. The aim is to arouse the profession to ask its own questions and to provide a process by which some answers may be found.

This discussion of decision making is by no means a theoretical exercise, although some theoreticians may find it provocative. Rather, this volume is directed particularly to teachers, other educators, and the public as a working guide to identify vital education problems and as a basis for formulating plans of action.

To this end, the volume combines four types of presentations: first, a process for decision making; second, substantive information out of which questions should arise; third, questions that the authors saw as being unanswered or in need of articulation; fourth, illustrations of problems found in contemporary America. These illustrations attempt to portray rather than preach.

The four modes—process, information, questions, and cases—are efforts to hasten the time when schooling and education will be synonymous.

1. The Decision-Making Process

One of the most persistent and widespread myths in American culture is the idea that a good decision maker is an instant decision maker. "He is an excellent supertendent [or principal or teacher]. Ask him a question and he gives you an answer. Ask for something and he says yes or no!" There is a tendency to equate soundness of decision with the length of time taken to respond. Some people *can* make decisions rapidly, and some people prolong and procrastinate on a decision to the point of absurdity. But how long it takes to make a decision and the soundness of that decision are less closely related than several other factors in decision making.

The process by which a person reaches a decision is probably the most crucial factor in determining the merit of the final decision. Obviously, if the process is sound, the resulting decision is likely to be far better than if the process is faulty. Decision making should be a rational process based on reason, not an emotional reaction.

At this point it is vital to distinguish between making a decision and the decision-making process—a distinction that is not made often enough. All one needs to make a decision is to have authority. A decision is not necessarily good, bad, or indifferent. It does not require information, knowledge, expertise, or accountability. Some of these may accompany the decision but they are not prerequisites. You are Jeff Edwards' sixth-grade teacher. You discover that he is copying the right answers for his weekly spelling test from a piece of paper hidden underneath his examination paper. What do you do?

Here you are faced with a conflict to be resolved—a decision to be made. Even if you do nothing you have made a decision. The situation requires neither punishment nor action of any kind. But it does require a decision from you because you are the teacher.

The decision-making process, on the other hand, requires that certain steps be followed. These steps may be followed in a rigid, self-conscious manner, or they may be abbreviated so much that they are almost unconsious actions. But in either case, sound decisions are the result of a sound process.

The decision-making process consists of the following distinct steps:

1. Informal problem identification (recognition of the need for a decision)
2. Information gathering
3. Problem identification
4. Identification of alternatives for action
5. Alternative projection
6. Decision selection
7. Decision evaluation.

Pam Beasley is a cute, shy blonde in your beginning algebra class. The number of mistakes in her written assignments indicates that she does not understand the work. You tried to assist her with some special tutoring. She seemed to understand everything you said, and she answered your questions easily. But the next day's assignment, however, was even worse than before. What should you do? How could the decision-making process assist you?

The first step is to recognize that a problem exists, although at first you may not be able to define it exactly. In this illustration, the discrepancy between Pam's written and oral work is only a symptom of the problem.

The second step then is to secure related information. What do you know about Pam? What do you need to know? How is she doing in her other school work? Is there a pattern to her errors?

It is almost a truism that you can never have enough information, but you must gather as much as time permits or the situation seems to merit because the nature of the information at your disposal will alter your subsequent actions.

If, for instance, you discover that Pam is doing quite well in all other areas, you should look more critically at your teaching and your subject than if all her work were poor.

If you learn that Pam has poor vision and does well on verbal work but poorly on written assignments, then you are on a different tack.

Both examples show how the kinds of information you possess govern the nature of the direction your decision will take.

The third step in the decision-making process is problem identification. It should be obvious that solving a problem requires that you know what the problem is. However, all too often the first attempt is to solve a symptom of the problem or to attack a problem without knowing what it is.

Bill Sand took home a very poor report card. The one he returned with his father's signature had been very carefully altered and improved. What is the problem?

1. How should he be punished? Should he be punished? How can he be made to understand the seriousness of his action? Why did he feel it necessary to change his grades?

2. What is wrong with Bill's schoolwork? Why are his grades so poor? How can we find ways to help him improve? Has he been placed in the proper group? Are our expectations in line with his abilities?

3. At another level of inquiry, the following questions may occur: Why do we have an instrument which permits, even encourages, Bill to resort to this action? What role do grades and report cards play in Bill's academic development? Can we adequately represent a person by a letter grade?

Each of the three sets of questions defines a different level of the problem; in turn, the way in which the problem is defined predetermines the nature of later solutions. The first set of questions focuses on Bill and his behavior. If we ask, "How shall Bill be punished?" then we have already decided that Bill will be punished. The second set focuses more on the school, its programs, and Bill's place in those programs. The third group relates more closely to the nature of evaluation and the role it plays in learning.

Each question (each statement of the problem) contains within it the germ of its solution. Thus, when we have identified the problem we have prescribed the boundaries within which we will seek solutions. Before action is taken, however, careful attention must be given to whether the problem identified is really the problem or merely a symptom of the real issue.

During the study period following Mr. Neal's history lecture, Lambert and Mark had a violent argument. Mr. Neal sent them to the principal's office with a note asking that they be punished for disturbing the class.

Mr. Neal's note defined the problem as he saw it: "disturbing the class." After listening to the boys, Principal Blake had a very different idea of the problem. From reading the text and listening to the lecture, Lambert had concluded that General Grant's strategy was comparable to that employed by MacArthur and Eisenhower and that Grant was therefore a better general than Lee. Mark, whose hobby was the Civil War, was protesting Lambert's views.

Was Mr. Neal mistaking the symptom for the problem? Should a class be so structured that what Mark and Lambert were doing is wrong?

Frequently our initial reaction to a situation is really a reaction to a symptom or to the most visible part of a problem. Only by defining and redefining a problem, only by securing and utilizing as much information as possible, can we be sure of identifying the most basic or fundamental problem.

Identification of alternatives for action is the fourth step in the decision-making process. It assumes that having identified the problem we are then faced with a series of alternative actions. If we accept Mr. Neal's definition of "disturbing the class," we could, for instance—

Send the boys back to class.
Talk to them.
Mildly punish them.
Severely punish them.
Ignore them.

Again the list goes on and on. Good decisions can best be made from a maximum number of alternatives. As a matter of fact, this is one definition of a creative person: one who sees alternatives which others do not see. The more alternatives one can identify, the better the opportunity to find the most creative solution.

The next step in the decision-making process is alternative projection. It requires that each alternative be followed by "If I take this alternative, what will be the probable consequence?" Admittedly, this step is pure speculation, but past experiences usually provide a fairly respectable basis for projection.

If the problem in the foregoing example were not "disturbing the class," but "a limited methodology which foreclosed additional learnings," there would be a number of alternatives. These alternatives could be classified in the following ways:

1. Alternatives related to Mr. Neal
2. Alternatives related to the boys or to each boy separately
3. Alternatives related to the history program
4. Alternatives related to grouping or structure
5. Other alternatives.

When we project the consequences of the alternatives, we discover that the best one combines elements from several categories. Therefore, we add another item:

6. Combination of above alternatives.

In doing this, we reach the sixth step in the process of decision selection. We decide that we will take action which will involve Mr. Neal, the boys, and our curricular structure and methodology

At this point, we see that our decision was better than it would have been if we had immediately accepted the definition "disturbing the class" as the true problem and assumed that our only alternative was to punish the boys.

As can be seen, even a simple situation contains the framework for making better decisions. The preceding illustration lacks only the final and frequently ignored step, decision evaluation. "How well did it work?" This evaluative step is important for two reasons. First, it provides the opportunity for modification, recall, or remedy. Second, it allows us to review our decision-making skills:

1. Did I have enough information? The right information? What did I ignore? Where could I have found more information? Did I gather more information than I needed?
2. How well did I define the problem?
3. Were there alternatives I did not see?
4. How good was my projective ability? Were there unforeseen consequences?

You may wonder if the process advocated is too time-consuming and cumbersome. It is true that the decision-making process takes time. However, it is not nearly as time-consuming and expensive as poor or inadequate decisions. Any decision which labeled Jeff a cheat, ignored Pam's poor vision, or automatically condemned Mark and Lambert would be far more costly than the time and effort required by applying a proper process for solving their dilemmas.

This decision-making process provides a systematic method for looking at problems; its payoff is in better decisions and solutions. Of course, here it has been simplified and applied to minor problems, but it is equally useful with problems of far greater magnitude.

2. The Decision-Making Structure for Education

This chapter examines the decision-making *structure* as distinguished from the decision-making *process.* The existing framework for educational decision making in the United States which has evolved over many generations consists of two basic elements—the legal and the extralegal.

The legal organization consists of formal governmental bodies and the officials at federal, state, and local levels who exercise constitutional, statutory, and judicial authority in regard to education. The extralegal or informal structure is composed of those persons, groups, and organizations which are not part of the formal, legal organization, but which do have sufficient impact on the legal framework to influence its decision-making processes. The two systems are interdependent. In fact, there is such continuous interaction between them that the modification of one system affects the other.

At this time, the structure for educational decision making in the United States is being strained to the breaking point by rapid and sometimes violent currents of social change. The entire process is under attack from several different directions—from teachers, from minority groups, from students, and from political activists of the left and the right. These attacks have resulted in ad hoc decisions about the structure that will vitally affect the course of education not only in the 1970's, but also well into the twenty-first century.

The entire process through which educational decisions historically have been made is being challenged. Groups which heretofore have not been included within either the formal or informal policymaking framework are now demanding to be included. People who traditionally have had little or no voice in decision making are unequivocally stating: "We *will* be heard!" Therefore, it is patently clear that the manner in which educational decisions are made will, at the very least, be substantially modified.

The current political decision-making structure, particularly the legal framework, is under fire for its failure to respond to society's changing needs. To put it more specifically, some groups—particularly teachers, minority groups, and students—are charging that those governmental bodies with legal authority to make decisions have not responded to relevant needs. That other groups are even more critical strongly suggests that the present legal organization has failed drastically in its response to society's exigencies. Some critics find little or nothing in the current decision-making process that satisfies them and would dismantle the present structure completely as a prelude to creating a new framework. Even though some statements being made about the current system are extreme, the charge that the traditional decision-making process is inadequate for today's society is not debatable. Obviously, many societal needs have not been met. Some groups have been entirely ignored in decision making.

Unfortunately, neither questioning the viability of the present structure for decision making nor modifying it nor even scrapping it altogether will guarantee the creation of something better. To produce a better framework, educators and laymen alike must address themselves to basic questions. Among those questions are the following:

1. How does the present legal structure operate?
2. What extralegal groups affect decision making?
3. What are the strengths and weaknesses of the existing decision-making process?
4. If the framework is actually not meeting society's needs, how can it be modified—or rebuilt—to make it applicable to today's and tomorrow's society?
5. Which individuals and groups should be granted legal authority to make educational decisions?
6. Which individuals and groups should be included in the decision-making process on a formal, but not necessarily legal, basis?
7. At what level should various educational decisions be made?

THE LEGAL STRUCTURE

The following discussion examines the legal organization for educational decision making in the United States. Questions will be raised about each level of the legal framework—federal, state, and local.

The Federal Government

In recent years, the federal government has become more directly involved in education at all levels, and questions are arising in regard to U.S. authority with respect to education. The federal government's authority to expend funds for the support of education stems from the "general welfare" clause contained in Article I, Section 8 of the U.S. Constitution. As interpreted by the courts, the "general welfare" clause grants the Congress rather broad authority to appropriate funds for education as well as for other programs that it judges to be necessary for the welfare of the nation as a whole. Federal authority does not extend to control over the states' educational policies. States still retain control over fundamental educational policies within their borders. Of course, states may not enact legislation that violates the U.S. Constitution, nor may they refuse to comply with federal regulations regarding the use of federal monies.

States and local school districts are not legally required to participate in federal programs. Both states and local school districts, however, have found it desirable and necessary, both politically and economically, to accept federal funds. Few people would expect Congress to dispense funds without attempting to guarantee that the monies would be expended for the purposes intended by the Congress. Therefore, federal expenditures for education have of necessity increased the degree to which the federal government controls education.

There is little question that the federal government will continue to dispense funds for the support of education. It is also safe to predict that the United States will increase its expenditures for education. There are, however, questions about the amount of federal aid and the manner in which it will be distributed.

During the 1970's, as in other decades, Americans will be forced to come to grips with basic questions regarding where and how federal monies will be spent. State and local levels of government will also confront the same kinds of questions. To put it another way, society will make decisions about its basic needs. These are fundamentally value judgments. Which is needed most: more classrooms or a system of space stations circling Mars? Both may be desirable and in the public interest, but both may not be financially feasible during any given period of time. Priorities must and will be established.

With respect to federal aid to education, a number of questions can be raised regarding the manner in which funds are to be distributed:

1. Given a specific amount of money, which schools should be the beneficiaries of financial assistance?

2. Private educational institutions have received substantial federal support in the past. Should this practice be continued and expanded?
3. If private institutions are granted public funds—under whatever guise—are they really private institutions any longer?
4. What roles should private and public institutions play in U.S. education?

Let us examine a situation where some of these questions are raised:

"Competition Is What Made America Great"

NEWS ITEM . . . BILL INTRODUCED TO INCREASE PUBLIC-PRIVATE SCHOOL COMPETITION

WASHINGTON:

Legislation was introduced in Congress today that would place public and private schools in competition with each other on an equal basis. Introduced by Representative Miles David, the bill provides that parents of school-age children would receive a federal education grant for each child. Parents could select any school, private or public, for their children's education. The federal grant, then, would be paid to the schools selected by parents. The selections would be made annually. The only restrictions placed on parents' choices would be that the schools chosen must be accredited by the state in which the parents reside and that the schools' admission policies must be nondiscriminatory.

Representative David stated in an interview that he expected a great deal of support for his bill. "Such a measure is long overdue," he said. "For too long public schools have enjoyed a virtual monopoly in education. Everyone knows a monopoly is inefficient. What is required is competition among schools. With competition, we can really achieve quality in education."

Representative David added that private educational institutions —the only source of "true competition" for the public schools—may disappear if they do not receive substantial federal assistance. "My bill will not only provide such assistance," he stated, "but it will force both public and private schools to upgrade the quality of their programs. In this sense my bill is not anti-public schools or anti-private schools. Very simply, with parents able to choose freely the schools their youngsters will attend, every school will have to prove to parents that it is doing a good job. Up to now the public schools especially have not had to do this. Now they will, or parents will not select public schools. They will go to the private schools."

In a separate interview, Congressman Harold Smith, chairman of the House Education and Labor Committee, said that support for Representative David's measure was already building. Urban and ghetto parents were singled out by Smith as particularly supportive. "They are sick and tired of the public schools' inefficiency," said Smith. "Also, such a bill is in the American tradition of free enterprise."

Committee hearings will be held next month.

It is not farfetched to expect that such forms of federal pressure as the mythical "David Bill" will increase in the future. Schoolmen are discovering that more and more schools are being held accountable for the money they receive.

Another major question about the use of federal funds is whether the federal government should concentrate its aid in the form of *general* grants or should focus its assistance primarily on *specific* programs and projects. Proponents of the general aid concept stress the argument that state and local authorities are in the best positions to determine the specific needs of local schools and school districts. Proponents of specific aid programs counter by saying that local authorities are not in the best position to determine local needs. They maintain that vision at the local level is frequently myopic and that national-level officials have a broader perspective on educational needs than local people and are in a much better position to determine local requirements.

The general aid logic continues: The federal government should be encouraged to make general grants of funds and should permit local authorities to determine how such funds shall be expended. Moreover, the advocates of general aid argue that specific aid programs, with their accompanying regulations, will eventually subvert local authority and may lead to a nationally controlled educational system. A national educational system, they contend, would not be in the public interest.

Proponents of specific aid programs maintain that such assistance will not destroy state and local authority. They argue that state and local officials can refuse federal aid if they so desire and that there are options within any federal aid program that permit local officials to maintain the integrity of their own educational programs.

These, then, are the fundamental questions which must be faced in regard to the federal government's role in the legal structure for educational decision making:

1. What direction should federal assistance take? More emphasis on *general* grants or more reliance on *specific* grants for specific programs?
2. To which institutions should federal money be granted? Public or private?

The State

In legal theory, the fundamental authority in the legal structure for education is the state. More specifically, this authority is lodged in the state legislature which has the primary responsibility and authority for determining educational policies and programs for the people of its state. Except for specific limitations on the legislature's power which may be contained in its state's constitution and the limitations imposed by the U.S. Constitution, the state legislature's authority is complete and absolute. One court put it this way:

> Essentially and intrinsically the schools in which are educated and trained the children who are to become the rulers of the commonwealth are matters of State, and not of local jurisdiction. In such matters, the State is the unit, and the Legislature the source of power.[1]

It is, therefore, evident that regardless of customary grants of authority to state and local boards of education, as well as other bodies, each state legislature possesses ultimate authority for determining educational policies for the state. There is no real question, then, of what the state may do. The question is, How should the state interpret its role?

Theoretically, the state legislature may exercise so much power that local authorities would be mere puppets. On the other hand, the state may limit itself to determining broad educational policies and may grant equally broad powers to other agencies and groups to implement those policies. The choice is in the hands of the state, or more specifically, in the hands of the representatives of the people —the state legislature. The specific authority structure which currently exists in any state is not fixed. The state legislature can change the structure at any time. Historically, local boards of education have been granted rather broad authority for decisions at the local district level. The state legislature, however, has the power to rescind local authority any time it believes it necessary. There are no inherent local rights in the operation of the schools which the state may not abrogate. It is equally true that the state has the right to expand local authority in the operation of the schools.

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[1] State v. Haworth, 23 N.E. 946

These questions must be raised regarding the exercise of state authority in educational decision making:

1. Which educational decisions are so important to the state as a whole that the decisions should be made at the state level?
2. Should the state confine itself only to establishing broad educational goals for the schools, or should the state mandate specific tasks?
3. Should the state department of education be cast primarily in the role of a consultative agency for local school districts, or should the state department be granted more direct authority in the management of local school districts?
4. As the cost of education continues to rise, poorer communities are less and less able to support good schools. This in turn widens the gap in the quality of public education between poor and affluent communities in the same state. State governments are being asked by educators to assume a greater proportion of the costs of education at local school district levels to ensure more equalized education for all children. What share of local educational costs should be borne directly by the state?
5. Should state financial assistance to local school districts be for general aid, or should financial assistance be primarily for specific purposes?

As an illustration of the way these questions can emerge, consider the following situation:

"Jackson's Crusade"

State Senator Alan P. Jackson had two notable characteristics: he loved a crusade, and he relished the challenge involved in maneuvering a bill through the legislature. He found an ideal outlet for both attributes when a constituent complained about . . . "the communist propaganda that exists in the textbooks and library books in our schools."

The Jackson Amendment to the Education Appropriation Bill required that all books, magazines, and other printed material purchased by, subscribed to, or accepted as gifts by any public school or school library receiving state money be approved by the State Textbook Committee. The State Textbook Committee would be a policy-making board composed of a state senator, a state representative, and three members appointed by the governor from patriotic and civic organizations. The commission would be empowered to employ a State Textbook Commissioner and a suitable staff to enable that office to examine and approve or disapprove all publications for public school use. The work of the Textbook Commissioner's office would be financed by a tax levied against state-approved books.

"Jackson's Crusade" illustrates the kinds of pressures generated by concerned parents. These pressures have already caused the structure for educational decision making to be modified to some extent. There is little question that the system will undergo further modification during the next decade. Whether additional changes will occur as a result of rational thought and behavior is an open question.

The Local School District

Local school boards are created by the state to carry out educational functions at the local level. At the local district level, the board of education has ultimate authority and responsibility for making those decisions that the state permits it to make. Many school boards, aware of their responsibility as state agencies, have interpreted this responsibility to mean that they could involve groups other than themselves in decision making only on a very limited basis. Such boards believe that board authority cannot be delegated and resist permitting teachers (or any other group) to make any decisions that could possibly be interpreted as policy decisions. This viewpoint rests on a very narrow interpretation of the school board's legal responsibilities. In the absence of state statutes to the contrary, boards of education may enter into both informal and formal agreements with other groups so that the latter are directly and meaningfully involved in decisions. The school board must take the final, formal action to legalize a decision. However, in determining the process by which decisions will be reached, the board may consult with other groups or may even voluntarily enter into collective bargaining agreements with other groups. To put it another way, the board of education does not abrogate its statutory responsibility by providing a means by which other groups are granted a voice in making decisions.

To summarize, the state, having plenary control over education, grants certain specific powers to local agencies in regard to schools in local school districts. Acting for the state, the local agencies must, in the absence of state laws to the contrary, render the formal decision on educational policies within the agencies' jurisdictions. However, local boards of education may involve other people and groups in the process of reaching districtwide decisions. The involvement of people other than school board members can range along a continuum from haphazard and informal to continuous and formal. As an example, the school board, while retaining its ultimate authority to employ professional staff members, could utilize a procedure whereby the teachers (or parents or both) in a particular school in effect make the decisions to hire. That is, teacher committees in each school could be granted the authority to recruit, interview, and recommend the selection of professional personnel for each school. Recognizing that selection of staff is a professional decision, the school board could then ratify the teachers' selections. The board could and would retain its legal authority to veto the teachers' decisions, but the teachers would actually be the primary decision makers.

The following illustration points up the complexities of involving people outside the school board in educational decisions.

"You Made the Bed—You Sleep in It!"

Henry Albert, president of the Ridgeton Board of Education, signaled the opening of the meeting. "I believe we are all here, so we may as well begin." He paused, then proceeded, "This is a very difficult situation for all of us. Certainly such a meeting is unique in the history of the Ridgeton Public Schools. Some members of the board, and I confess I share some of their anxieties, believe we should not even be meeting on this matter."

Albert paused again and looked at each member of the group Present was the committee that had the previous spring selected the new superintendent of schools for the Board of Education. Included were two principals, three classroom teachers, and a counselor. "Mr. Morgan, since you were chairman of the selection committee, would you please open the discussion."

Roger Morgan, an elementary school teacher and president of the local education association, nodded "I believe we all know why this meeting was called. And we appreciate the board's meeting with us to discuss this problem. Last year this committee, with the approval of the board, interviewed a number of candidates for superintendent. The board agreed to accept our recommendation. We selected Mr. Walsh, and the board employed him. Now, we find that Mr. Walsh has not worked out to the satisfaction of this committee or to the majority of the members of the teaching staff. We must decide whether or not he should be asked to resign."

"Even if we should agree that Mr. Walsh should resign," said the board president, "he may not want to do so. Then, the board would have to buy up his contract. Some board members would certainly be reluctant to do that. But that's not the main point anyway. The real problem is that we agreed to permit the staff to make the selection of a superintendent. And now you tell us you have changed your mind. Some of us are wondering if it was a good idea to give so much authority to a committee. After all, the community will hold the board accountable for this decision."

"Any group, even the board of education, could make a mistake in a personnel matter, Mr. Albert," replied Morgan. "Mr. Walsh looked good on paper and he interviewed well. But, he simply hasn't performed up to standard. The board must consider releasing him."

"Why?" retorted Albert. "In reality, the board did not employ Mr. Walsh. We only ratified the decision your committee had already made. Indeed, if the board had. . . ."

"I think Mr. Morgan's point is this," said one of the teacher members of the committee. "While the committee recommended Mr. Walsh, the board of education legally employed him. Therefore, the board must ultimately accept the responsibility for the decision. As you pointed out yourself, Mr. Albert, the community will hold the board accountable for Mr. Walsh's employment and dismissal—if we should agree on that course of action."

"You're only partly right," replied the board president. "Let's get a few things straight here. You teachers and administrators convinced the board that the employment of a superintendent was a 'professional' decision, that you alone should make it. The board agreed. We did as you suggested. Now you are saying that it was a bad decision, and you want us to assume responsibility for it by firing Mr. Walsh and in effect saying to the community: 'The board made a mistake.'" Albert paused for a second, then went on: "The board did not make a mistake. If we had really employed Mr. Walsh, then we would be responsible for his success or failure. Instead, your committee, representing the teachers, employed Mr. Walsh. You are responsible for his success or failure. The board has to live with its decisions. Why shouldn't the teachers? Why should the board have to explain to the Ridgeton taxpayers about spending tax money to buy up Mr. Walsh's contract? If Mr. Walsh should be fired, perhaps that money ought to come out of the teachers' salary fund!"

Several additional questions about decision making at the local school district level must be raised at this point:

1. Which decisions should be made solely by the board of education – the body politic?
2. Which decisions should be made cooperatively by teachers and the board of education?
3. Which decisions should be made by the professional staff? The teachers? The administrators?

The answers to these questions depend partly (a) on one's concept of democracy, (b) on one's concept of local government, and (c) on one's faith in men. The answers also depend partly on the realities of political life. For example, some groups may acquire sufficient political power to obtain authority from the board of education to make certain decisions, regardless of whether or not the board's grant of authority to these groups fits into any rational system of political philosophy.

THE EXTRALEGAL STRUCTURE

The extralegal decision-making structure is composed of those persons and groups which are not part of the formal, legal framework for decision making but which do influence decision making. Extralegal influence may be visible or invisible. Extralegal influence is visible when representatives of the local taxpayers' association attend the school board meeting and petition the board for a change in property tax rates. Invisible extralegal influence is present when an influential member of the community quietly and informally passes the word to the board of education that the board should or should not enact a specific measure.

Political influence may be effected without an overt attempt on the part of any person or group to control a decision. The decision maker may act in a certain way only because he believes a certain person or group would desire that he do so. For example, a school board member may vote for a specific issue because he thinks an influential member of the community would want him to. Moreover, the board member may do so because he respects the person of influence or because he fears the consequences of opposing him. Similarly, decision makers may act in accordance with their perceptions of groups' desires.

Extralegal influence always has been a part of the process through which American political decisions have been made. Formal policy decisions must be made by legally constituted authorities such as boards of education, state legislatures, or the Congress acting in their official capacities at formal meetings or assemblies. The process that leads to the formal vote of legislative bodies is subject to many influences, formal and informal, visible and invisible. The process may be simple and easily defined, or it may be so complex as to defy description.

Extralegal influence may be of little consequence, or it may be powerful and all-pervading. Extralegal influence is constitutionally guaranteed to Americans; the formal decision-making process would be severely handicapped, if not completely ineffective, if some means were not available for lawmakers to determine what their several publics believe about any issue. Lawmakers can ask their constituents what they want, and they can rely on their own sense of what the public wants. But more often the formal decision maker depends to a great extent on the people, acting through their several interest groups, to make their wishes known.

The most frequently posed question in regard to the role of interest groups (or pressure groups, depending on one's position at the moment) in the decision-making process is this: Does the interplay of the various pressures exerted by such groups result in decisions which best serve the general public interest? There is, of course, no definitive answer to the question. Virtually all Americans would agree that democracy guarantees minorities of whatever persuasion the right to combine and to attempt to influence the public or their representatives to adopt some course of action. Similarly, most people would agree that many interest groups have spearheaded movements leading to national or local action which has benefited all citizens. At the same time, some groups have used their power to benefit themselves at the expense of the general public. The problem here, of course, is how to maintain the positive benefits of certain interest groups without subjecting the public to the ill effects of others. Authorities at every level of government must be constantly alert to the pressures exerted by various interest groups. They must be able to identify special interest groups and to separate those groups' self-serving demands from demands that may benefit the public as a whole.

The following illustration shows what can happen when certain pressure groups exercise their muscle.

"Honky Go Home"

Fred Raines had been a very successful principal in an outlying, high socioeconomic neighborhood of Urban City. The Board of Education, in an attempt to improve the quality of education in the central city, asked Fred if he would agree to a transfer to an inner-city school. After much thought, Fred decided that he should try to use his skill and knowledge where it was needed most. Not only did he agree to go, but he also recruited six of his most resourceful and creative teachers to accompany him. All seven recognized that it would be a difficult assignment and that each would have to be prepared for change in routine, environment, and associates, but all welcomed the professional challenge.

In July Fred reported to the school. He had scarcely found his new office when a "delegation" presented itself. Without any preliminaries the spokesman explained: "Mr. Raines, this community had nothing to do with your selection. We think you are a misfit and a poor choice. For your own well-being we suggest that you resign or go back where you came from."

His efforts to reason with or placate the group were to no avail.

Three days later a picket line marched in front of the school. The signs read "Honky Go Home," "Belview Is Black," "We Want Our Own Principal—Not Whitey's."

Fred tried to ignore the activity, but as the beginning of the school term approached, he heard rumors of still more activity. There was talk of a student boycott and a teacher strike.

On the evening of August 1, Fred's phone rang. A man's voice said, "Get out, Whitey." Then the line went dead. Every half hour throughout the night the phone rang and there was a similar message. The next day Fred learned that each of the six transfer teachers had received the same treatment. Their descriptions of the callers' voices indicated that not one but a number of callers were involved.

As Fred sat at his desk, the secretary brought in a note which had been delivered to her by a boy she said she did not recognize. The note said, "There are thousands of ways. The phone is just one. Get out!"

What should Fred and the six teachers do?

What should the Board of Education do?

Who will make the ultimate decision?

Is there an ultimate decision?

Social pressure groups today have powerful voices and demand to be heard. In the case of Fred Raines, the impact of an "extralegal influence" on an authorized decision-making group is obvious. It would not be easy to make a rational, systematically reached decision as to whether Raines stays or goes, but one would hope that it would be possible.

Formal Interest Groups

Formal interest groups are relatively easy to identify. However, the process by which they exert their influence and their strength may be somewhat obscure. Formal groups include such organizations as the Chamber of Commerce, the National Education Association, the American Legion, the National Congress of Parents and Teachers, and the AFL-CIO. These organizations may have a wide variety of interests or a single interest. They may or may not be vitally interested in educational decisions; they may or may not exert much influence. Formal interest groups are "permanent"; that is, once they speak up, they are not likely to disappear. They will stand by, ready to enter into the decision-making process again should they decide their interests are at stake. These fundamental questions must be raised in regard to such groups:

1. How much influence should such groups be permitted?
2. Should school authorities seek the opinion of such groups on a regular basis?
3. Should some formal interest groups be included in the legal decision-making structure; that is, should their influence be extended to a seat on a policy-making body?

Other formal interest groups may be transitory. These spring up around a single issue, conduct meetings, perhaps elect officers, and attempt to influence only one decision or perhaps a few closely related decisions. Generally, these groups dissolve once the issue in which they have an interest is resolved, although occasionally they survive and become permanent fixtures in the community's decision-making structure. Examples of transitory interest groups might be parents of one school attendance area organized to seek additional classrooms, a local taxpayers group hastily organized to defeat a bond issue, or a state or national committee brought together to seek special legislation of some kind for education. The importance of transitory interest groups should never be overlooked. Frequently such groups can muster sufficient support to vitally affect education decisions. There is also an increasing tendency for such groups to become permanently organized and to demand official seats on policy-making bodies. Parent groups in urban areas and student groups on college campuses are examples of groups which originally organized around a particular issue and later pressed for permanent roles as decision makers.

Informal Influence

It is more difficult for the observer to identify those forces in the decision-making structure that are not formally organized and that exert their influence through an informal network. Commonly, although not quite accurately, such influence is called the "power structure." More accurately, the power structure includes all those elements that have the power to influence decisions.

Many formal decisions by boards of education, state legislatures, and even professional educator groups are based on informal agreements by influential men and women whom the general public may or may not know. Even if the persons are known, their actions and agreements—the processes by which their influence is exerted—are virtually invisible to the outsider.

Informal and invisible political influence should not be overrated. Neither should it be overlooked. In the past two decades, a great deal has been written about the influence of powerful figures, especially in cities and towns, who control the decisions of an entire community. That such power does occasionally exist is not disputed. Many people, however, have come to believe that all governmental decisions are controlled by a few powerholders, that legally elected officials are largely puppets, and that the general public is an amorphous mass devoid of influence. Such is not the case. While the possibility, even probability in many areas, of secret influence should not be ignored, the fact is that people can and do organize and do influence decisions. The Civil Rights movement is dramatic evidence of this. Moreover, legally elected authorities are seated on governmental bodies; their influence is not to be ignored. The influence of informal power figures in American society should neither be overemphasized nor underemphasized. Instead, such influence should be appraised realistically in a specific situation.

Informal political influence is not necessarily bad. It is evil when the public will is frustrated or when one group or another gains an advantage that is not in the public interest. Informal conversations and agreements frequently advance the public interest. For example, the process of professional negotiations would be hampered frequently if negotiators for both sides could not reach informal decisions and compromises.

Extralegal influence on decision making includes not only those formal and informal groups already discussed, but also such other influences as national foundations and the national assessment program. Unquestionably, the several national foundations whose primary power lies in their ability to finance certain programs have influence on educational decisions. Those school districts in financial need—not a small number—may be influenced to adopt a specific experimental program in order to secure badly needed foundation funds that, in turn, free local funds for other projects. This influence is subtle. Foundations do not deliberately set out to install specific programs in school districts, but school districts will modify or even completely change their own projects in order to meet the requirements of those who award foundation grants. The same process occurs when school districts apply for U.S. Office of Education grants. Therefore, even when authorities who award grants do not attempt directly to influence educational policies, they may do so indirectly because the applicants modify their own goals to accommodate the grantors. With financial pressures growing at local and state levels during the 1970's, there is no question about the burgeoning influence of those who dispense the funds.

The recent DESP publication, *National Assessment of Educational Progress*,[2] attempts to alleviate three major concerns on which educators base their skepticism toward national assessment of education. The first is that national assessment will become a nationwide system for individual testing; the second is that national assessment will encourage and result in the development of a national system of education; the third, that over a period of time a program of national assessment could lead to uniformity in instructional methods and goals. These concerns are legitimate only if there is no large-scale involvement of the nation's teachers and administrators in decisions related to the development and evaluation of the national assessment program. It must be remembered that evaluative programs must themselves be evaluated and that the major purpose of evaluation is to provide a basis for future decisions.

Extralegal and informal structures for decision making have always been a part of the American political system; they will continue to be a consideration in educational policy making in the 1970's. Educators must raise these questions:

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[2] Department of Elementary School Principals. *National Assessment of Educational Progress: Some Questions and Comments*. In cooperation with the NEA Center for the Study of Instruction. Washington, D.C.: the Department, 1967. pp. 24-27.

1. How can the public interest be protected from the selfish interests of a few very powerful groups that may attempt to gain control of the decision-making process?
2. How can educators avoid overreacting to an aggressive group that momentarily exerts great pressure?
3. How can the expertise and the competence of all individuals and groups be utilized in the formal decision-making process?

Certain groups are moving toward formal power positions. What positions, if any, and what decision-making powers, if any, should they be awarded? It can be argued that all groups are represented, at least to some degree, in the existing legal structure through elected representatives on school boards and legislative bodies. At the same time, some groups are better represented than others. Therefore, how can current outgroups see to it that they, too, have a voice in the political process? From time to time, of course, new groups will spring up around new interests, so there is no guarantee that a structure accommodating today's interests will also serve tomorrow's.

TOWARD A NEW STRUCTURE

Various groups have charged, not without foundation, that the existing structure for educational decision making is inflexible. Any social system tends toward rigidity. Many people with positions of authority in the current framework have frequently frustrated the public will, even subverted the public interest, by ritualistically observing legal procedures instead of utilizing the system creatively to accomplish desired ends.

One result has been the tendency of some groups to force their way into the decision-making structure through the use of militant action. Teachers, students, and minority groups (the latter primarily black) all have used militant tactics to obtain their ends. Alienated by defenders of the status quo in the decision-making structure, these groups have seized on militant action as one way to secure for themselves positions of authority in the decision-making structure.

Thus, the current decision-making framework has to some extent been modified already. Teachers, through the passage of legislation requiring boards of education to negotiate with them, already have won a foothold in the structure on a formal, legal basis. There is little question that in the 70's teachers will solidify their position in the decision-making process. The question is, How much and what kinds of decision-making authority should teachers be granted? It is relatively easy to state that teachers should determine the methods by which literature shall be taught. It is more difficult to obtain consensus on whether or not teachers should make final decisions on which materials and books should be used in literature courses. And it is even more difficult to marshall agreement on whether teachers should determine if literature is to be included in the curriculum at all.

One argument is that the state legislature (acting for the people) should determine general goals for the educational program. The school district would have the option of adding other, local objectives. Then the professional staff of the school district would be charged with achieving the goals. The professionals would be granted the authority to determine the methods to be used and the subjects to be taught. Traditionally, however, the state has determined both general goals and, in many cases, specific subjects, with the local school district having some options in regard to both. As teachers press for more authority, the basic question to be resolved is, Which school decisions should be made by professionals?

Similar questions come to mind in regard to decisions to be made by groups representing communities in which schools are located. The issue of decentralization has touched off heated controversy in many urban areas. There is no question that in the 70's parents will have greater decision-making power in regard to the schools their children attend. Like a host of other groups in society, they are demanding a voice in decisions that affect them and their children. Some measure of legal authority has already been granted community groups in several cities.

Unfortunately, the ramifications of decentralization were not fully examined in some school districts—most notably New York City in Oceanside-Brownsville in 1968—before programs were implemented and chaos resulted. Among the several issues in the New York situation was one in which the local board, composed of representatives of the community, dismissed a number of teachers on the supposition that the teachers did not relate to the children. No one questions the desirability of teachers' relating to the children they serve. The question is, What criteria were used to judge the teachers? Although this is not the place to reargue an old case, the events in New York City illustrate the necessity for determining in advance what authority local communities shall have in decision making and what criteria shall be used in formulating decisions. Even more fundamental are these questions:

1. What kinds of decisions do parents have the competence to make?
2. What kinds of decisions do they have the right to make?
3. What kinds of decisions do they have the responsibility to make?

Students, like teachers and minority groups, have felt alienated and have charged that legal authorities have been unresponsive to their needs. The student involvement movement that began in the colleges and universities has already moved into the high schools. In some schools, students have been successful in obtaining formal seats on decision-making bodies. Answers must be sought to the questions of where and how to include students in the decision-making process.

For decades educators have paid lip service to considering students' opinions when decisions were made. Lip service will no longer suffice. Students are at the barricades (indeed, they are past the barricades and in the dean's office) demanding that their voices be heard. They are asking, at the minimum, for a vote on curriculum decisions, evaluation of instructors, and various other decisions affecting their welfare. More militant students are suggesting that they be granted the final authority in the operation of the schools and colleges.

There is no question that students will take more part in educational decision making in the 1970's. However, the specific roles they will play in decision making are not easily defined. The democratic ideal suggests that those affected by decisions should have a voice in making those decisions. How large that student decision-making voice will be depends on answers to other questions:

1. What student abilities should be used in the decision-making process?
2. What responsibilities can students assume for their decisions?
3. What responsibilities are students *willing* to assume for their decisions?
4. How can educators draw on students' talents more effectively in reaching decisions?

Hopefully, answers to these questions will be found before, and not after, the dean's office (or the Principal's Office) is seized.

Besides those groups that have made headlines in their struggles to penetrate the decision-making structure, there is that large mass of citizens only partially represented by the names on the front pages. For lack of a better term, this huge group might be called the "general public" and their interest, the "public interest." As the more militant groups compete with each other and jockey for positions of authority, a question must be raised about the public interest. As Herring observed in the midst of the crisis of the Great Depression, the clash of competing interest groups does not necessarily guarantee that the public interest, even if it can be defined, will be protected.[3] Therefore, while Americans struggle with the problems of admitting new groups into the decision-making structure, they must also guard against sacrificing interests that will best serve the nation as a whole. They must ask: Will a reconstituting of the decision-making structure serve the public interest or will it serve only the interests of those groups seated at the table when the decisions are made?

To summarize, the appearance of the decision-making structure for education in the 70's will closely resemble that of the past decade. Decision making will take place within the present framework of federal, state, and local government. Formal and informal interest groups, as well as individuals with varying degrees of political power, will continue to compete with each other for positions of decision-making authority.

Although the apparatus for educational decision-making in the 1970's may look familiar on the surface, it will function quite differently. The locus of decision-making authority will shift further away from local school district levels to state capitals and Washington, D.C. Groups that only recently have emerged as viable political forces will solidify their positions in the decision-making structure. New groups, and new coalitions of present groups, will form and press for acceptance of their demands.

An old political axiom holds that as more groups compete for attention in decision making, consensus among the various groups declines, political conflicts rise, and decision-making authority flows toward the center of power. The axiom appears to be valid for educational decision making. New groups, in terms of political power—students, teachers, black citizens—have risen to challenge the decision-making authority of older, established groups. Conflict over education problems and issues has become, and will continue to be, frequent and heated. Consensus among groups is increasingly difficult to attain. More and more frequently the conflict over education decisions cannot be contained at local governmental levels. Sometimes it can be contained only with difficulty within states.

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[3] Herring, E. Pendleton. *Public Administration and the Public Interest.* New York: McGraw-Hill Book Co., 1936. 416 pp.

More and more often the ultimate decision must be made by the state legislature or the Congress. This trend will undoubtedly continue.

3. Changing Concepts of Learning

This volume is concerned not only with how decisions ought to be made, but also with some vital educational issues that will require decision making in the 70's. How children learn is a particular focal point of interest at this time, from the White House to the classroom. Considerable controversy surrounds this question because of recent research that challenges some long-standing concepts of how learning takes place.

The axiom that "learning is a change in behavior" governed the actions of schools in the 60's. In the area of curriculum the emphasis was on the development of behavioral objectives. In developing new instructional media, the emphasis was put on "programing"—a systematic process of modifying behavior in a series of small steps. Organizationally, the trend is toward something called nongraded, continuous-progress, or individualized instruction. In most instances these organizational patterns have been based on some degree of analysis of the desired behavioral outcomes of students. Emphasis in teacher education programs has moved toward capsule-size microteaching experiences that provide a basis for modifying teaching behavior. Instruments have been developed to evaluate practicing teachers that provide them with opportunities to see their own behavior so that they may modify that behavior toward "something" more acceptable.

Conceptualizing learning as a change in behavior has had a significant and, in most instances, beneficial effect on the development of education in the United States. Educators are at least beginning to see students as unique individuals who develop at different rates.

For schools of the 70's and beyond, the question of what constitutes *behavior* remains to be answered. Some contend that "behavior" has meaning only if it is a measurable observed response. Others argue that it may be internalized and nonobservable. In some instances, behavior is considered to be a complex interaction of physio-psychological mechanisms and loops with complexities that defy observation and measurement. The controversy about whether behavior can be observed, measured, and defined presents a perplexing dilemma. If behavior does not have a consistent meaning, then how can one define learning as a change in behavior? Behavior can, of course, be a defining characteristic of learning if the meaning of behavior is clearly stated. It is because of the confusion over the meaning of behavior, however, that many recent studies of learning are taking new directions. It is not unlikely that these studies will influence the development of all aspects of education in the 70's and beyond.

Changing Concepts of Who Learns

"Hobson's Choice"

John Hobson was having his second cup of coffee before going to the office. He had spent most of the night staring at the ceiling, and he still did not have a proposal for the Board of Education. Exasperated, he paced the floor while thinking aloud: "Any other superintendent would jump for joy to have my problem. Here is a community that wants to finance an additional program in our schools, and I don't know what to do with the funds. We need to reach the children earlier and there is enough money to build and staff kindergartens, but there is also a great need for vocational education. Somehow we must reach the children who leave school at 16. How can I decide which should be recommended to the board?

Many educational communities are facing Mr. Hobson's dilemma. His decision certainly should take account of recent research findings that now tell us a great deal about optimum age levels for learning.

A major shift in emphasis concerning who can learn has received impetus from a revival of interest in developmental studies of human growth and development. The concept of remedial education is rapidly giving way to the newer concept of compensatory education. Remedial education is primarily a game of "catch up" begun after the race is three-fourths finished. Compensatory education is an attempt to provide all children an opportunity to *begin* the race with a fighting chance. There is some disagreement over when compensatory education must be accomplished, but a general rule is the earlier the better. Some feel that all is lost if the child is not reached by compensatory education prior to the age of three. Others give him a chance of survival until age nine. Regardless of the age level one accepts as the limit, there is general agreement that no practical amount of effort by the schools to provide remedial education beyond that age will have a significant effect on raising a child's achievement levels.

It is rather obvious that the most efficient education program focuses on the young child. Freudian psychologists have been saying for a long time that the first five years are the most important for development. Hard data now overwhelmingly support that theory.

The decade of the 60's ushered in a number of "new" concepts concerning who is capable of learning. The changing social consciousness of the period was reflected in a new and serious questioning of the capability of available instruments to measure and predict any individual's innate ability to learn. Intelligence has been most commonly identified as innate ability to learn. The measurement is usually taken through the administration of an intelligence test, which in turn yields a somewhat spectral ratio that is then reduced to a number commonly known as the IQ.

Evidence is rapidly accumulating for the development of a case against the acceptance of IQ as a fixed base for prediction of learning ability. It is now generally assumed that an individual's IQ is not permanent and unchanging. In fact, evidence suggests that simply changing a teacher's expectancies for a given child may result in a significant change in that child's IQ in a relatively short period of time. Programs designed specifically to broaden a child's experiences have caused significant change in the IQ. Training in the skills needed to take an intelligence test (not training in how to answer the questions but simply training in reading and following instructions within time limits) has resulted in significant changes in IQ. Bloom's analysis of developmental studies leaves little doubt that environmental factors have a significant and lasting effect upon the development of intelligence.[1]

Much of this information has been the subject of speculation for some time, but recent research and analysis lend credence to those who openly challenge the validity of the IQ.

In her recent book *Psychological Testing*, Anastasi summarizes an aspect of intelligence testing that should be of central concern to every educator of the 70's.[2] Not only does an individual's score on an intelligence test have the potential for change, but also what a culture identifies as intelligence changes as that culture changes.

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[1] Bloom, Benjamin S. *Stability and Change in Human Characteristics*. New York: John Wiley & Sons, 1964. 237 pp.

[2] Anastasi, Anne. *Psychological Testing*. Third edition. New York: Macmillan Co., 1968. p. 211.

1. Do tests now used to measure a child's intelligence reflect a construct of intelligence relevant to measuring that child's ability to survive and compete in the social environment of the United States today?
2. Has the social environment changed to the point where new criteria for intelligence may be required? Are today's schools attempting to measure microseconds with an hourglass?

Doubts about the whole question of measuring intelligence cause a second shift in concept. What follows is a natural inclination to doubt the validity of being able to identify clearly *who* can learn. Some writers have gone so far as to say that there is nothing taught in today's schools that any child who is not suffering from physiological damage cannot learn. One wonders if this is not an indictment against the structure of curriculum rather than an implication that any child can learn anything? At the least, the implications are that most children are capable of learning much more than they are learning in today's schools and that teachers' attitudes, as expressed by their conduct and their curricular decisions, may be the greatest detriment to increased learning.

Educators of the 70's must answer a number of significant questions that emerge from these two major shifts in concepts concerning "who learns."

1. If the younger years are as crucial for learning as research currently suggests, what are the implications for the development of intermediate and secondary programs?
2. Are remedial programs of no significance, or is it rather that many remedial programs now used start from false assumptions concerning learning?
3. How can teachers better understand what is being measured on an intelligence test (that the score represents the student's specific response to specific questions) rather than accepting a particular score as a gross measurement of intelligence?
4. How can professional educators develop a relevant concept of the relationship between intelligence and achievement?

"But What Does That Have To Do with Teaching?"

"Did the lesson go well? Were the children enthusiastic? Were the audiovisual aids well organized? Why did that cartridge have to fail on the record player now of all times? Did I really misspell

Mississippi when I wrote it on the board? What was Mrs. Ardmore whispering to Mr. Byrd when I corrected Cynthia?" These questions were running through Alice Gordon's mind as she entered the conference room. She had just finished teaching a lesson for her college supervisor of student teaching. Accompanying the supervisor was Dr. Wheeler, the director of the student teaching program. Tony Pace, the principal of the school, also sat in on the observation.

After the formalities, Dr. Byrd, the college supervisor, commented: "Alice, you are to be complimented on how well you followed the organization of your lesson plan. But you really should have checked out that record player ahead of time and given it a test run. I was impressed with the way you brought all the children into the discussion. You seemed very much at ease, but you should move away from the front of the room a little more often. Wouldn't you agree, Mrs. Ardmore?"

"Yes," replied Alice's supervising teacher. "Moving about more would help hold the attention of the children and would avoid the kind of problem you had with Cynthia. You should have seen it coming long before you had to correct Cynthia in front of the class. That kind of situation detracts from what you are teaching."

"Mrs. Ardmore is correct, of course," said Dr. Wheeler. "Incidents like the one with Cynthia, the mistake in the spelling of Mississippi, and the breakdown of the record player detract from the effectiveness of a lesson. That's when you drift away from your plans just enough to detract from the content of what you are trying to teach."

"Something seems to be missing in this discussion, Alice," the principal suggested. "Perhaps you could react to what is being said about the lesson in light of our conversation yesterday."

After a pause Alice replied, "I'm sorry, Mr. Pace, but I don't see how that applies to this discussion. If I remember correctly, the theme then was that the evaluation of teaching should be based on what children learn."

* * *

In education, the decade of the 60's was dominated by the learning theory of psychologists working in the field of programed instruction. Although not completely understood by many educators, reinforcement has practically become a byword for teaching and learning. The impact of the concept of stimulus shows in the proliferation of instructional media materials designed to stimulate every conceivable sensory system found in the learner. Programs designed for immediate reinforcement of a child's response patterns have met with adulation from some educators and absolute rejection from others. Regardless of the acceptance or rejection of programing as an effective way to promote learning, the point has been made most emphatically that a child learns as an individual responding to individual problems at his own individual rate of response. The educator's concern has shifted from an emphasis upon *children's* learning to master common educational tasks to *each* child's learning to master his own individual educational tasks.

Along with the developmental emphasis on the psychology of learning and the continued impact of programed instruction, there is also a growing wealth of knowledge in physiological psychology which hardly has been tapped by the educator. There is no way to predict the direction of new discoveries in learning theory in the 70's, but it is possible to hypothesize about the directions education may pursue based on emerging learning theory in psychology.

The impact of programed instruction will no doubt continue, but new ideas will arise about its applicability to the schools. Research indicates a lack of consistency in the effect of programed instruction on learning in a school setting. There is also some implication that the use of programed materials without teacher-student interaction fails to provide stimulation and maintain student interest over an extended period of time. Programing is very effective, however, when the student sees the content of the learning experience as necessary and immediately functional in his everyday life. A boy who wants to be an auto mechanic can learn highly technical skills in auto mechanics much faster through carefully programed experiences than through any other currently available means. The same techniques, however, do not give consistent results in the academic fields of science and mathematics, where it has been generally assumed that programed materials were most applicable. In schools of the 70's, the main concern about programed learning experiences is not whether to use them or not, but how to use such experiences most effectively. Questions like the following must be answered:

1. Does a certain balance of teacher-student interaction, programing, and other methods work best in causing learning to occur?
2. Rather than trying to develop totally programed experiences in any area of learning, would it be more feasible to attempt to identify specific areas of learning that are most amenable to programed experiences?
3. To what extent should the use of programed experiences be left to the discretion of the student? (I.e., should programed

materials be resources that a child can use at his discretion or should they be formal sources of information used in the way that most textbooks have been used in the past?)

"Why Didn't Someone Tell Me?"

"Mary Jane," said Mrs. Ullrich, "I simply cannot understand why you are having such a difficult time with physics. Your academic record and all of your test results indicate that you should be doing quite well in this class, and here you are, nearly failing."

"But Mrs. Ullrich," Mary Jane answered, "I just don't understand the equations. I know what forces are and I understand the relationship of time and space, but I can't solve the motion problems."

"You did so well in introductory algebra last year that you should have no trouble with the mechanics of the mathematics," said Mrs. Ullrich.

"That's right, but we didn't solve problems like this in Algebra I. They're what my brother is doing now in Algebra II."

"My gracious, I've been teaching this course for 15 years, and you're right. Algebra II really should come before physics. I wonder if I ought to bring this up in the curriculum committee?"

Current studies in developmental psychology indicate that there is a "right time" for acquiring certain cognitive learnings. Bruner, Bloom, and Piaget have been quite effective in removing any doubts that may have surrounded this issue. This is not to imply that there is an appropriate age at which all children must pass through a particular "stage" of development, but rather that certain kinds of learnings are necessary prerequisites to other types of learnings.

Learning appears to be a sequential process that is enhanced by providing the appropriate environment and the experience in proper sequence. Certain academic learnings may never occur if they are not in the proper sequence. Even though they have the weakness of being based on what is, rather than what ought to be, developmental studies imply that if certain learnings are not gained within rather specific developmental ranges, they may never be retrieved at a later time.

These findings pose a number of significant questions for schools of the 70's:

1. Which learnings that are the legitimate concern of the schools must be developed sequentially?

2. What are the best methods for determining when an individual is ready to proceed from one level of development to another?
3. To what degree can an individual perceive his own developmental needs in intellectual growth?
4. How can the balance between an individual's self-direction in learning and the school's view of the need for uniformity of direction for learning best be achieved?

"Change Pills"

"But look at it this way," said Ann Roden. "We give them milk at school, and in the late 30's we fed them apples, raisins, nuts—almost any healthful food we could get. I remember coming to school early and cooking huge pots of oatmeal so the children could have a nourishing, hot breakfast. We did it all because we believed that a well-nourished child could learn better. Now we have an even more exciting chance to actually feed their bodies in a way that we know will improve their ability to learn. How is that different from what we've been trying to do in a haphazard . . ."

"But it *is* different!" said Sheila Duggan. "What we've done up to now is to follow natural, normal, ordinary dietary procedures. We use our school lunch program, and even your breakfast program, Ann, to supplement the diet of children. What is being pushed at us now is unnatural. Now we're tampering with the brain. It's like being asked to put our children on drugs."

"Now, Sheila, don't get carried away," replied Dorothy Perkins. "We're not being pushed into anything. We were asked to be an experimental school in which DZP would be tried."

"That's what I mean," said Sheila. "What right do we have to experiment with children? It's not right to give dope pills to children."

"Sheila, DZP isn't a dope pill. It's a highly concentrated protein derivative."

"It's been tested and tested with animals and it has no harmful effects, unless you consider the ability to learn faster and retain better as harmful," said Mel French.

"Now you're being sarcastic!" Sheila exploded. "I don't think it's right to use chemicals on children. It's changing their natural brain processes."

"Sure it's changing their brain processes, but isn't that what education does?" Mel paused for his point to register, then continued: "We give people information, and it changes the way they see the world. We teach them to use the scientific method, and it changes the way they try to solve problems. We change their environment, and it changes their response pattern. DZP is the latest tool we have available to help them change, and that's what education is – change. This time the change comes in pill form, that's all."

"But it seems wrong, immoral. I'm against giving them tranquilizers and I'm against giving them sleeping pills and I'm against giving them pep pills and I'm against giving them 'smart pills'!" responded Sheila.

If you were in this faculty meeting, what position would you take?

A major shift in emphasis on how children learn is coming from the relatively new field of study dealing with the physio-psychological perspectives of learning. A rather significant group of psychologists is proposing that all learning is based on physiological changes in the organism. The theory is that since learning is a function of the nervous system and the nervous system is nothing more than an extremely complicated physical-chemical system, then a change of behavior of the nervous system must be reflected in some type of change in the physical-chemical system. If this assumption is true, then it is only logical to assume that induced changes in the physical-chemical (nervous) system will result in a change in behavior. Although the present stage of research in physio-psychological learning does not present enough evidence to draw the conclusion that a physical-chemical change will cause a predictable direction of change in the behavior, there is sufficient evidence to indicate that change in behavior does result.

Implications of this research for schools of the 70's are found presently in such studies as those conducted by Bennett and others [3] on the influence of environment on the development of the cerebral cortex in rats. Their studies indicate that early experience has a significant effect on both brain chemistry and the thickness of the cortex. Systems of memory storage as they are related to ribose nucleic acids (RNA) are receiving considerable attention, but few specific conclusions related specifically to learning are available at present.

Experiments are being conducted with the use of chemicals as stimulants to learning. It is even being suggested that such chemicals could be added to school lunches to improve learning. Other experiments indicate that high protein diets at an early stage of development have a significant positive effect on intellectual capabilities.

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[3] Bennett, E. L., and others. "Chemical and Anatomical Plasticity of the Brain." *Science* 146: 610-19; 1964.

Many current and future studies on the physio-psychological nature of learning will raise questions that are presently inconceivable for the 70's. Some may require moral and ethical decisions that run counter to the present social structure.

1. Are there ethical, moral, and legal implications in providing learning stimulants in school lunches?
2. Will students who use memory stimulants be given an unethical advantage over students who do not use such stimulants?
3. Which environmental factors within an educational facility have the most significant effect on the physio-psychological development of learning?

These questions depend, of course, on the eventual conclusion that there are significant physio-psychological ramifications of learning. Which groups in the community will share in decisions to effect changes in pupil ability through the use of chemicals? It is useful to suggest, even now, that whatever type of governance prevails in this matter ought to include particularly the medical and clerical professions.

Why Children Learn

"He Just Needs To Work Harder"

Once outside the classroom door, Mike slowed down. He couldn't wait to get out, but he was in no hurry to get home. "Where can I go," he thought, "where I won't see anyone?" He purposely avoided his usual route out of the building in order to miss the small clusters of his classmates that were already forming.

"Why does this always bother me? Every six weeks it's the same thing. I should be used to it by now."

As he walked through the teachers' parking lot, Mike slipped between two cars and knelt down. Now, for the first time, he looked directly at the manila envelope, opened it, and cautiously removed the card inside. On the front was the familiar identifying masthead of the school system and the paragraph that explained that this was a report of pupil progress, Mike's name, his teacher's name, and the principal's stamped signature. But Mike didn't see any of this. He gingerly opened the card and scanned the column with the most recent entries. "D's and F's again," he thought. The vague, unformed hope that Mike had felt since early afternoon vanished and was replaced by a dead feeling in his stomach.

On the opposite page, he read the Teacher's Comments: "I know Mike can do better if he would only work harder."

"Oh, no," he groaned. "How does she know how hard I work! There go my weekends!"

Mike put the card back in its envelope and stood up. "Hey! There's Mike," yelled a voice from the other side of the parking lot. "What'cha get, Mike?" Mike looked in vain for a way to avoid the group bearing down on him.

"How'ja do?" "What'cha get?" rang a chorus of voices and Mike was surrounded.

"What'cha get?" repeated a voice.

"I did OK," Mike said, trying to act nonchalant and unconcerned.

"Yeah! I'll bet you did! Let's see!" retorted one of the group.

"I bet'cha I beat ya!"

"I bet'cha we all beat ya!"

Mike's stomach churned. He was confused by his classmates' jeers, and he held his report card behind him. "What'll I do?" he wondered. "Why does this always happen to me? Why can't I ever get a good report card? And I'll catch more when I get home."

"Come on! Let's see it!"

"Bet'cha failed everything!"

"Stupid!" "Yeah!"

"Mike's scared to show us!"

"I did OK," Mike repeated half-heartedly as he walked away, but he could hear them calling after him even when he reached the edge of the school grounds.

"I'm no good!" he muttered as he kicked a loose rock ahead of him. "I guess I'll never do well enough to make them happy. First the teacher, then my folks, now even the kids. Everybody knows I'm dumb. Work harder! Why don't they get off my back?"

Mike headed toward home, but he was in no hurry.

One of the most significant messages that behavioral psychologists, cognitive psychologists, and learning theorists have attempted to get through to educators is that nothing succeeds like success: nothing else causes an individual to seek success in the present and in the future as much as past success. One is as hard pressed to find anyone who rejects this concept as one is to find anyone who consistently acts on it. Moreover, a system of education in which effectiveness is judged on the basis of normative standards implicitly rejects the concept of past success as the motivator for future success. Normative standards intrinsically assure that 50 percent of the population will not meet success in achieving those standards.

Considerable debate has flourished over the years about whether children should be "socially promoted" or "academically retained." Generally, the decision has been in favor of "social promotion" on the mistaken assumption that social promotion provides more sense of success. The argument has been focused on the wrong question. Success is not a matter of promotion or retention within a meaningless system. Success is a matter of achieving a relevant objective. It is doubtful that moving from one room to another, from one building to another, or from one teacher to another is a relevant objective for most individuals. That is, unless the ultimate objective makes those rooms, buildings, and teachers symbols to be chalked off in the process of escaping from that system.

The never-ending problem of motivation continued to plague schools in the 60's. Learning theorists continue to debate which definition of motivation is most appropriate to an improved understanding of learning. Apart from this, there is a generalized theory of motivation which each of the major learning theory groups states in its own terms; that theory is important to education in the 70's and beyond. In short, individuals from varying socio-cultural environments will be motivated by different experiences. All children from all socio-cultural environments will not react in the same way to external forces. In particular, an individual child does not always come to school motivated to accomplish the objectives imposed on him by the school.

This single finding in the area of motivation (which is not new but recently more strongly supported by evidence) has deep implications for relating motivation to the educational activities of schools of the 70's. Educators should concern themselves not with a general concept of motivation, but rather with the specific means of determining which particular motivators cause a particular child to respond to a specific situation.

Previously, motivation research has centered around getting groups of children to respond in unison to a central activity. Educators have been overly concerned with building motivation into the teaching process or presenting it as a part of the "lesson plan." Educators of the 70's must change their own behavior patterns to the extent that they see a motivator as a specific object or activity which causes a particular individual to respond to a specific learning goal or objective. Motivation is not a generalized set; rather, it is a particular incident. It is highly individual, it is internal, and there are as many varied motivators as there are environments from which children come. Apparently there is no such entity as an unmotivated individual. However, some systems of education, curricular structures, and teaching techniques are obviously incapable of discovering and using motivators in the educative process. Studies that point out that most academic dropouts occur around age 10 rather than at the legal school-leaving age of 16 support that conclusion.

The questions of why children learn are virtually limitless in scope and number. However, the following are submitted as major focal points for decision making:

1. If all children do not come to the schools with well-established value systems concerning the need for education, then what responsibility do educators have to restructure their own value systems to reach all children who come to them?
2. Which aspects of contemporary systems of education are inherent deterrents to success for students *and teachers?*
3. What standards of success can be developed to ensure that most students will experience an acceptable level of success in learning?
4. What responsibility do educators have for devising and *using* techniques to discover what motivates particular children?
5. What is a proper balance between external motivation and internal motivation? How does a system of education accommodate its objectives to an individual's objectives?

Many decisions in the educational community during the 70's will revolve around conceptual changes in the learning process discussed in this chapter. The next chapter examines some problems arising from changing ideas about content and process. Here again it becomes clear that some type of cooperative governance by responsible community groups will replace narrowly based decisions by a few select school people, even when these decisions are as close to the classroom as the content and process in curriculum.

4. Content and Process

"Don't Forget To Look Back"

Miss Prentice, chairman of the committee for reevaluation of citizenship education, called the second session of the committee to order by requesting Mr. Adams to summarize his study group's recommendations on the methodology of citizenship education.

Mr. Adams: "The group agrees that the following activities will greatly improve the meaningfulness of the experiences our students have in citizenship education:

1. The curriculum should be problem-centered, providing an opportunity for children to explore questions on an individual basis at a level appropriate to their abilities.

2. Opportunities for direct experience in citizenship activities should be provided. For example—

   a. A voting booth should be brought into the school, demonstrated, and used for a school election.

   b. Classes should be taken on trips to the State Capitol while the legislature is in session.

   c. Small groups of students should attend local council meetings, school board meetings, and meetings of community organizations such as Kiwanis, Lions, and Rotary.

   d. Individuals should be assigned the task of attending and reporting on meetings of the governing boards of local churches, women's clubs, PTA, and so forth.

   e. Individual students should interview local businessmen concerning community problems.

   f. Classes should conduct community surveys on housing and community services (i.e., sewage, water, garbage, maintenance of public buildings, and transportation)."

Mrs. McGruder: "Mr. Adams, I hope you will pardon the interruption, but I have a question. Do you really think the children of our community are ready for these activities? After all, the results so far indicate that they have very little knowledge of the historical basis of representative government in this country. Isn't your group ignoring the need for some intellectual basis for making decisions?"

Mr. Johnson: "Just a minute, Mrs. McGruder. I can see where you're heading, and I object. We've gotten nowhere by pouring historical facts into the students. We need to make the content more relevant as Mr. Adams' group implied, but I am dismayed that so far there has been no indication that the children will be made aware of the present urban crisis, the problems of the equalization of opportunity among ethnic groups, the problems of the impact of power groups such as the military-industrial complex, and the dangers of pollution."

Mrs. McGruder: "I am well aware, Mr. Johnson, that it is your hope to save the world from the conservatives, but I doubt that it can be accomplished without some knowledge of how the world got to be in the shape it is in."

Miss Prentice: "May I simply ask whether we are to be concerned with how something is to be taught or with what is to be taught?"

The forces geared to changing the nature of educational content and process were never before so powerful as they became in the late 1960's. The same forces will probably become even more significant in the 70's. Nevertheless, it is difficult to identify a single force responsible for the push toward curriculum change. One would hope that a prime mover would have been the development of a sound, generally applicable theory of education. That, however, was not the case. A more likely source of influence is the general mood of the times, that is, the worldwide demand for change. Educational change reflects but one aspect of that demand.

One significant cause of present uncertainty about what to teach is the increasingly apparent lag between information gain and information retrieval. The so-called knowledge explosion is having, and will continue to have, a significant impact on the content and process of education in the 70's. The considerable confusion among educators over the meaning and relationship of content and process in education compounds the problem. It is not at all unusual for an active committee of teachers, ostensibly working toward the revision of teaching procedures, to become bogged down to the point of frustration over the content of educational activities. Such a group typically admits the need for changes in procedure at the same time it defends existing procedures on the basis that certain content must be taught. The implication is that the most efficient process of transmitting content is, after all, through "recitation." Hoether and Ahlbrand,[1] in a review of the role of recitation as the major process employed in education, found no significant quantitive or qualitative change in that process between 1893 and 1967. Regardless of any research findings in the psychology of learning, the relaying of content to students continues to depend on teacher questions and student responses. The efficacy of such a procedure must be questioned. Current evidence leaves little doubt that recitation as a teaching procedure reaches and reinforces only a minority of students.

If attempts to renovate or change education procedure become frustrated by content problems, it would seem reasonable to modify education through the revision of content. The assumption is not valid, however. Teachers and administrators faced with the adoption or revision of content suddenly find themselves asking questions about procedure. The procedural questions asked normally focus on two central issues: time and resources. First, how much time (normally in terms of block schedules) will be allotted to any specific content area? Second, what resources (usually meaning textbooks, classrooms, and teachers) will be required for teaching that content?

Teachers and administrators may be forgiven for their confusion over the relationship of content and process in education. Both terms are abstractions with rather complex philosophic distinctions. Unfortunately, the supposed "authorities" are frequently of no assistance in clarifying the distinctions. Many of the attacks on the process of education in the past were based on the content of education. Just as often, attacks on content were supported by arguments based on procedures—procedures, incidently, which research tells us have not changed to any significant extent in the last 70 years.

There are sound reasons for discussing the distinction between process and content. Unless educators begin to struggle seriously with the theoretical relationship of process and content, even the dream of equal educational opportunity for all may cease. Voices outside the profession are saying more and more that they know not only what the content of education should be but also what processes are needed to transmit that content.

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[1] Hoether, James, and Ahlbrand, William P., Jr. "The Persistence of Recitation." *American Educational Research Journal* 6:145-67; March 1969.

"Remedial Reading?"

Billy's mother wasn't angry, but her manner showed the sincerity of her concern and her emotional involvement.

"Billy's teacher said that he was reading at a fourth grade level and that was the reason he was making such poor grades in all his courses. Then I read that!" she said, pointing at the newspaper clipping on Superintendent Jordan's desk. "Is it true and if it is, why aren't our schools doing that? Why should I have to pay extra to get what I thought our taxes paid for?"

Superintendent Jordan looked again at the clipping she had given him. It was from the local paper.

> **DON'T LET POOR READING HANDICAP YOUR CHILD**
>
> Your child can read 1,200 to 5,000 words per minute with 75 to 85 percent comprehension.
>
> **GUARANTEED**
>
> Any child who completes our reading program will read a minimum of 1,200 words per minute with 75 percent comprehension (as measured by standardized reading achievement tests) OR ALL TUITION AND FEES REFUNDED.
>
> READING INSTITUTE OF CENTERVILLE
> 1216 NORTH LAKE DRIVE
>
> **Come in for Free Demonstration**
> **Absolutely No Obligation**

"Now if a profit-making group can promise results like that, why can't my child's reading be improved at school? Mr. Jordan, do they know more about teaching reading than your teachers?"

If you were Superintendent Jordan, how would you respond?

Whether or not the Reading Institute of Centerville, or other private agencies like it, can do a better job of relating process and content than the public schools is irrelevant. What is relevant is that such claims are finding an increasingly responsive audience.

Before pursuing the so-called practical aspects of process and content of education in the 70's, it may be well to think seriously about the following questions:

1. How does the United States' commitment to universal public education relate to the controversy surrounding content and process in education?
2. What is the real nature of the interrelationship between process and content in education?
3. Is education a process, or a product? What difference does it make? How might content in a school where education is seen as a process differ from content in a school where education is seen as a product?
4. What effect should the increasing acquisition of knowledge have on the development of content in education?

Changing Concepts of Content

Two important changes in the content of education have implications for the 70's. The first is a natural outgrowth of the increase in man's knowledge. As man collects more and more information about the world around him, that information must be transmitted to successive generations. Not only is there currently an information explosion, but there is also more information about how old and new knowledge may be used. Knowing that plutonium exists is one thing, but knowing how to use it is something else. As knowledge in both areas continues to grow, the educator is faced with the formidable problem of selection. This is not a problem new to educators of the 70's, but it is being magnified greatly by the "knowledge explosion." As one writer suggested recently, "If a chemist or physicist sat down and read the scientific journals in his field as a full-time job, at the end of the year he would be three months behind in his reading."[2] Systems for gathering information far exceed man's capabilities for relaying that information to others.

The rapid growth of knowledge poses a number of serious questions for educators of the 70's and beyond:

1. Are some content areas uniformly necessary for all students?
2. Should all students studying a particular content area be exposed to the same amount of that content?

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[2] Kapusinski, Albert T. in *Journal of Business Education* as quoted in *Reader's Digest*, May 1969, p. 69.

3. What relationship should exist between a student's needs and abilities and the content he studies?
4. How can content be modified to meet individual needs and abilities?
5. How can content be determined before students are in the school and their individual needs are assessed?
6. What is the nature of the relationship between textbooks and content?
7. What is the nature of the relationship between teachers and content?

The second major change in the nature of content in education concerns how content will be assimilated by the student. All evidence indicates that the primary use of content by students in schools is for information recall on request. A question is asked, and a student recalls content information. Periodically a number of successive questions are asked, and the student who can recall the most content gets the prize. Many students drop out of this recall contest at an early age.

Surely, there is more to assimilating content than recalling information. There are relationships among content areas. There are generalizations to be drawn from content. New content grows out of previously learned content. Content provides a basis for the development of attitudes and values. These and other concepts of the function and nature of content require major revisions in what is to be taught in the schools of the 70's. Major decisions must be made about which content is a source of learning, which content is a reinforcer of learning, and which content is not fundamental to learning.

Assuming that content serves a purpose beyond the development of memory cells has significant implications for educators. No longer can the teacher serve as an interrogator or dispenser of packaged information. Instead, he faces the arduous task of sorting out content appropriate to the needs of an individual student at the proper time. Moreover, he must identify and select the most effective ways to bring the content to the student. For the first time in the history of the universal education movement, the teacher becomes a true professional, faced with professional responsibilities and decisions.

Changing Concepts of Process

"Just Plug It In"

"The system is, of course, a complicated piece of technology, but the concept is quite simple. Every classroom would have a large closed-circuit TV screen and a keyboard much like a touch-tone telephone. As a matter of fact, using it would be just like using a telephone. When a teacher wants a particular film, filmstrip, slide, map, or anything that can be projected, he simply looks in the directory, dials the code number, and within seconds the material appears on the closed-circuit TV screen."

Tom Drake, representative of Educational Media Systems Corporation, was addressing the Greenview Board of Education. "On the other end is an arrangement much like controlled storage racks," he continued. "Now imagine that a teacher has access to our system. What would it be like? I'll give you a situation."

"Suppose Mr. Jones is teaching a unit on 'Life in Ancient Greece. He prepares his lesson plans and introduces the topic. When he decides the group is ready, he dials the proper number. Eight miles away in your central materials bank, the computer receives the call and activates the machinery. In mere seconds the film he wants is automatically projected onto his closed-circuit TV screen. He can let the film run to its conclusion or by pressing a button marked "Pause" he can stop it for questions or discussion. If he chooses he can push a button marked "Hold." The image on the screen will stay. Suppose there is a map the class wants to study at length; they can do it."

"But we can do all that with our present projectors," said Board President Leffington.

"That's right, but you didn't hear me mention bringing a projector to his room, securing an operator, threading the machine, darkening the room, or, most important, scheduling the film weeks or months ahead. The material is available when the teacher decides he wants it!" Drake emphasized each word in the last sentence. After a short pause, he added, "Good teachers frequently find unanticipated learning opportunities. A chance remark, a question, a student's shared experience can suddenly open a door and students are ready to gallop through. But, unfortunately, most of these serendipitous gateways are lost because the teacher cannot exploit them. With our system he has but to look up a code, dial a number, and teaching material is there. Everything is at his fingertips—at his command."

"In addition," he added before he could be interrupted, "individual student stations can be equipped so that materials can be used or reused by any pupil at any time."

After a series of questions by board members, Drake thanked the board for permitting him to make his presentation. After he departed, the board continued its discussion. The members were obviously impressed by the proposed system and its potential. Finally Mr. Leffington summarized the quandary they felt when he said: "I think we are all agreed that this is a marvelous piece of equipment. It would make it far easier for teachers to teach better. I can find no fault with the idea, but if we are to use it it will mean that we must spend, just for this system, more than it would cost us to build a brand new high school. We would have to hold a bond referendum and persuade our voters that what we are trying to do is worth all that money. That's the decision we must make."

What do you think the board should do?

"But It's Unheard Of!"

"One way of solving a problem is to try to redefine the problem—that is, to try to get a different perspective. Some people have called it horizontal thinking. I guess that's what I'm proposing," explained Frank Underwood.

"But it's unheard of!" said Stuart Knight.

Dr. Simons intervened before Frank could continue, "Every idea was unheard of before it was aired. Let's not be too hasty in throwing cold water. The purpose of this seminar is to permit and encourage you to explore alternatives. You are all principals—hard-nosed administrators. You live with usual school problems and usual school solutions every day. Perhaps the 'unheard of' will provide you with a better way. I certainly don't believe that kicking an idea around will hurt any of us. At least, the university thought enough of the idea to let us give you credit for this weekly exercise. Please continue, Frank."

"Well," replied Frank, "I was trying to tie several requirements together. If we are going to individualize instruction we must provide different kinds of schedules—schedules which provide time for an individual to pursue a learning experience on his own—by himself. We must also provide a space for him. He needs a carrel or an office which is his alone. It must have enough work space and storage space for what he needs to do. Ideally, it should be equipped with viewing, listening, and recording devices."

"Up to this point I'm not advocating anything that hasn't been suggested and even implemented in a few places. But I want to add an extra dimension. As we consolidate schools, we must transport more students. Rather than build buildings full of carrels, why not build school buses that way? A student could begin his school day when he steps on the bus rather than when he gets to the schoolhouse. His individual schedule could include the time he is usually just riding. When the bus gets to school his office is there. He can go from it to any other space for the various classes or groups in which he is involved and he can return to his parked carrel any time during the day. His carrel equipment can run on DC current when the bus is under way and be plugged into all the media at school when he arrives. I don't know what it would cost but I do know that we could eliminate a lot of duplication—buildings, lockers, buses, carrels, and so forth. Most of all it would respect the student as an individual and would view him as something more than one component of a group," Frank concluded as he turned to Dr. Simons.

"That is a fascinating idea," said Dr. Simons. "What do the rest of you think?"

If you were a member of this seminar, how would you respond?

General acceptance of the attitude that a teacher must begin with a child where he is has been a major influence in the changing concept of process in education. To begin anywhere else is foolhardy and assures failure on the part of both teacher and child, although the burden of that failure has rested traditionally with the child. The antithesis of this is to assume that the teacher has failed. Neither the child nor the teacher is responsible for failure. Responsibility for failure rests rather with an educational structure which assures failure on the part of both. Teachers who by some miracle have been successful in reducing their failure and that of children in their classes have, in some way or another, overcome that structure. Using age as the primary criterion for placement of children in the educational setting has demanded the use of processes in education that violate all reason and logic. It takes no great acumen to see that children of the same age differ physically, socially, and emotionally in their development. Why is it then that the practice of placing youngsters in academic situations by age groups continues? Small wonder that teachers in such circumstances continue to use recitation as a primary teaching process. After all, teachers are human and need as much reinforcement to keep their sanity as other people. Perhaps a teacher has no alternative but to emphasize *what* is being taught and *why* in a system that groups children by age. If a teacher were to evaluate realistically *how* he is teaching and the effect that "how" is having on each child, he would have no alternative but to leave the profession, leave the world of reality, or change the system.

Age placement of children establishes certain characteristic processes of education by implication, if not by direction. If normative standards of academic achievement are based on norms of chronological age, is it not logical to assume that a child who is to perform certain academic tasks at a given age should be exposed to the same educational experiences as all other children of that age? How can this be attained more surely than through a uniform system of recitation? Who can reprimand teachers for relying on that procedure? Under such a system it is illogical to do anything but provide all children of the same age with the same books, the same materials, the same assignments, and the same questions and answers.

The major error is the assumption that a norm is a standard to be achieved by every child of a particular age. This error has caused us to neglect the development of workable processes in education for children who do not fit our preconceived notion of what children should be. The assumption that a norm is a standard has led to the establishment of a system which assures that the processes employed to meet that standard will not work for at least one third of the school population. When children enter the school race, some find themselves on an oil-covered, inside lane; no matter how fast their wheels turn, they do not move too far ahead. Others are placed in an outside lane where they are sure to slam into a wall of frustration and drop out early in the race. Is it realistic to assume that the teacher or the child has failed when the standard is not reached? If we assume that people should be purple, may we then assume that there is something wrong with them when they come in a variety of hues?

The relationship between standards of academic achievement and the processes of education may be the most fundamental question for educators of the 70's, especially if evidence emerges to support the hypothesis that age-grade standards do indeed determine and restrict the development of instructional processes. Research in the processes of education leaves little doubt that age-grade standards are the major criteria for measuring the success of those processes.

"What Do Tests Test?"

Leaning forward in his chair, Art Lewis, principal of Henry Hills Elementary School, addressed the three members of one of the school's teaching teams:

"Thank you for meeting with me this afternoon on such short notice. The reason I called you together is that Jimmy Day's parents have just made an appointment to see me tomorrow to talk about Jimmy's progress. I need your advice because we all know Mr. and Mrs. Day are sometimes a bit difficult to talk with."

"What can they be concerned about?" asked Beth Wilcox, the team leader. "Since we initiated the continuous program, Jimmy's progress has been excellent. In fact, our last report to his parents was very favorable."

Art nodded. "I agree, Beth, that they should not be concerned. But they are. Mrs. Day said on the telephone that they were pleased with the report your team made about Jimmy, but now that they've met with the counselor and looked at the results of the standardized achievement test Jimmy took last month, they're upset."

"We've looked at the test results of all the youngsters in our group, including Jimmy's," said Mary Tomkins. "Jimmy's scores weren't quite up to grade level, but standardized tests don't measure *all* learning."

"I know," replied Art, "but two years ago when we gave the tests to Jimmy's class, Jimmy scored slightly above grade level on the test. Mr. and Mrs. Day are concerned that Jimmy's learning has been retarded during the last two years."

"That's nonsense," said Beth. "Jimmy is doing so much better than he was two years ago. Why, he is much more eager about learning, he has more initiative, he's happier in school. . . ."

"*But* the tests don't show it," interrupted Claire Combs. "And that's the point. No matter what you say, Beth, when you get right down to it, the tests show that Jimmy Day has not made the progress he should have made. I tried to tell you and Mary that three weeks ago."

"Standardized tests don't measure all we're doing, Claire," Mary said. "And besides, they're far from perfect in measuring what they're supposed to measure."

"Mr. and Mrs. Day are really worried about the difference between the team's report of Jimmy's progress and the standardized test results," said Art. "Mrs. Day said they assumed from your report that Jimmy was at least up to grade level. Now they wonder if he is."

"He just isn't up to grade level. Our report was too favorable," said Claire.

"You're relying too much on a single test, Claire," said Beth. "Our report was *not* too favorable. Our report reflected Jimmy's progress in a variety of learning experiences, not just a few items on a test, which, by the way, wasn't prepared either for our school *or* for our continuous progress program. Besides, the concept of continuous progress. . . ."

"It's the only test we have," retorted Claire, "and I'm willing to rely on it more than on our subjective judgment that Jimmy is making satisfactory progress. What objective measure do you have to offer, Beth?"

If you were Art Lewis, how would you respond to Claire?

These are related questions also to be considered:

1. What is happening in education that can provide a basis for criteria to judge the effectiveness of the processes in use?
2. Exactly what is the relationship between the chronological age variable and the academic achievement variable?
3. How do theories of learning and theories of content relate to theories of process in education? What should be the relative weight of these theories when it comes to the development of the processes of education?
4. What causes the gap between the development of learning theory and the development of educational processes?
5. What is the relationship of normative standards based on age and absolute standards based on behavior?
6. How would the concept of the process of education be changed by the development of absolute standards of behavior as criteria for judging academic achievement?
7. Must all children meet an established set of absolute standards based on behavior? How can achievement be measured if standards are different for different children? How can processes of education be developed if the standards vary from individual to individual? If the standards do not vary, then what

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processes will meet the needs caused by individual differences among children?

Another influence that has contributed to education's remaining relatively unchanged during the twentieth century is, unfortunately, the system of teacher preparation. John Dewey stated long ago, and educators have proudly embroidered it on their banners, that "learning is experience." So how do prospective teachers spend their period of training? Basically, they do four things: they read, listen, recite, and perform so that judgment may be passed. With all the talk of innovation, those four activities continue to be the fundamental formal experiences in teacher education. Approximately seven-eighths of the time spent in teacher education continues to be spent in recitation. Objections will be raised to the effect that prospective teachers spend more and more time in some form of laboratory or field experience. That is not denied, but what happens when those prospective teachers enter classrooms? What process or processes of education do they use? In their laboratory and field experiences are they evaluated on the basis of what children learn because of the processes employed or are they evaluated on the basis of how well they perform certain processes before a group of children regardless of, or even in spite of, what children learn? Are they, in fact, judged on the criteria of how well they conduct the process of recitation and how many attention-seeking gimmicks they can employ within a restricted period of time? The hope is that convincing evidence can be presented which refutes the implied answers to these questions.

Teacher educators need to take an extremely analytical look at how they may actually refute the very principles that they espouse by continuing to rely on a recitation-based curriculum. It is a questionable methodology whether the recitation is controlled by a teacher, a television set, a movie projector, or a programed learning device. No matter what medium is applied to a group of children irrespective of the needs of the individual children of that group, the objective remains the control of the direction of learning. Control of the direction of learning is what the process of recitation is all about. Is control of the direction of learning what the process of education is all about? Is there a process that allows a child the freedom to learn? Is there any difference between the processes employed to control the direction of learning and processes employed to allow the freedom to learn?

Teachers of the 70's must make some fundamental decisions about the preceding questions if education is to prepare students who can meet the needs of the twenty-first century. School personnel may legitimately work in concert with the larger social milieu to decide what will be taught in the schools, but they have direct and unalterable responsibility for determining the processes to be employed in that teaching.

The current gloom of the educational scene is not unrelieved. Some attempts currently under way may offer some answers for the future. Movements toward the "nongraded school," the emerging concept of continuous progress, team teaching, the creation of individually paced programs of study, the advent of modular scheduling, and many other changes in structure and philosophy are giving rise to new concepts in the process of education. These changes also raise serious questions for the educators of the 70's:

1. Is the process of education to be based on teaching or on learning?
2. What is the nature of the continuum in continuous progress? Is it content? Is it the development of learning processes? Is it the development of behavioral skills? Is it the building of a system of values and attitudes? Is it an interrelationship of some or all of these, and if so, what is the nature of that interrelatedness and what processes cause those interrelationships to occur?
3. Are old processes of evaluation appropriate for determining the effect of new processes of education? Can a nongraded system of education be evaluated by techniques developed for the graded system of education and can any meaningful comparisons be drawn?
4. How can discovery be used as a process of education in a prescribed content curriculum? How can discovery as a process in education be evaluated? Are all children expected to "discover" the same thing? In the same way? What are the implications of a process of education based on discovery?

5. Evaluation

"River City Reporter"

EDITORIAL

The situation that has developed in Edgewood illustrates what happens when education is left to the educators! The story is a simple one, but it bears scrutiny not only because we sympathize with our neighbors in Edgewood, but also because it could happen right here in River City.

Four years ago a joint teacher-PTA study committee at Edgewood's East High School expressed dissatisfaction with the large number of East High students who were failing their college board examinations. The committee also reported displeasure with certain aspects of the English program at the school. That was enough for the educationists in Edgewood to immediately form a "task force" to study the English program in all of Edgewood's high schools. (Educators always form "task forces," and Edgewood's "task forces," like all others, generally mean extra pay for teachers to rewrite curriculums during the summer.)

The Edgewood task force came up with a new experimental English program, a "linguistic approach" to English instruction. East High School received the "benefits" of this new program. Although parents weren't informed of any changes (Why should they be told? After all, they're just the parents and taxpayers.), "linguistics" was installed at East High School and traditional English was abandoned.

That was four years ago. Now, in a report (which, by the way, the administration of the Edgewood schools tried to keep out of the hands of the public), East High parents find that *fewer* of their youngsters are passing college board examinations. The principal reason is the poor performance of East High students in English. So much for the experimental program!

What do the educationists say about all of this? Their answer is that the college examination does not measure what the students are learning in the new English program. The educationists claim the program is successful, that it is the exam which is a failure.

We say nonsense! With a capital "N"! It should be obvious, even to the educationists, that a high school program is not successful if it penalizes students attempting to enter college! That this has happened in Edgewood is patently clear. There is no better way to evaluate a program than to see what happens to students who complete the program.

Let's keep an eye on River City to see that we don't have the same experience as our neighbors in Edgewood.

Evaluation will be a major consideration in the schools of the 1970's. In fact, there will be more emphasis on evaluation in virtually every aspect of American life. Although business and industry have long devoted attention to evaluation, only recently has strong emphasis been placed on evaluating the activities of government. While some people have always been concerned with the prudent expenditure of taxes, today's technology for the first time makes it possible to systematically evaluate program outputs that require value judgments in the evaluation of their success. One of the techniques being utilized is PPBS (Planning, Programming, Budgeting System). Simply stated, a PPB system is a continuous process of reviewing and analyzing all programs and activities of an organization with the purpose of determining which programs and activities are the most productive in terms of goal achievement. A PPB system requires evaluation of output in terms of input; the emphasis is on deciding on the basis of economic considerations whether specific programs shall be continued. For example, if two methods of teaching English are compared, the method selected will be the one which costs less, assuming that both methods achieve the objectives of the English program.

A PPB system may seem much like an efficiency expert approach to program planning. Unwisely applied, this could very well be the case. There is no question that a PPB system draws attention to economic factors in decision making, but this does not mean that human values must be or should be set aside. Human goals, values, and resources are an integral part of a PPB system, whereas they were frequently not considered by the efficiency expert. A PPB system approach to planning and evaluation requires that objective goals be established for any program and that alternative methods of achieving the goals be evaluated. The relative success or failure of the program is determined by measuring to what degree the goals are attained.

The federal government provided the initial impetus for the growth of PPBS, but other governmental units, including legislative bodies, are experimenting with the system. There is little question that PPBS, or a similar system, will be applied to educational organizations in the near future, certainly during the 1970's.[1] We should begin to acquire some understanding of the theory underlying PPBS and of the implications that this theory holds for education.[2]

The increasing demand by the public and legislatures that educators explain to what extent increased appropriations will improve the quality of education will require extensive evaluation in schools of the 70's. We are constantly requesting more funds for salaries, materials, buildings, and a variety of other items. Each request is accompanied by the argument that the increased expenditure will result in a better educational program. It is no doubt true that today's schools are superior in many respects to those of the past. Increased educational expenditures, accompanied by better staff, facilities, and equipment, all contribute to some degree of improvement in educational programs. There is, however, very little evidence that pinpoints precisely what it is that leads to "quality education" (*quality* itself is seldom defined), or to what extent an increased budget actually upgrades the instructional program.

Generally the public and the state legislatures are asked to accept on faith that "more money equals better schools." State legislatures, local boards of education, the federal government, and the general public are less and less inclined to accept such unsubstantiated statements as justifications for more money.

"He Who Pays the Piper"

In Longview School District, substantial support for public education is a tradition. The citizens and their board of education want, and are willing to pay for, quality education. In the past, the fact that 73 percent of Longview's high school graduates went on to higher education was accepted as evidence of "good schools."

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[1] The California Legislature has already enacted legislation requiring local school districts to use a PPB system, and some school districts in other sections of the United States are experimenting with PPBS.

[2] For a brief overview of PPBS, see NEA Committee on Educational Finance. *Planning for Educational Development in a Planning, Programming, Budgeting System.* Washington, D.C.: the Association, 1968. 46 pp.

Recently, however, something new has emerged. Samuel Crowley, a member of the Board of Education, said it best: "I don't mind paying more and more for education, but I think we ought to get more and more education for our money. I think we should be able to see some additional results for additional expenditures."

These remarks prompted a general discussion by board members about "accounting in education." The discussion ranged over a broad area and included merit pay, academic achievement, success in college, attitude of students toward school, outside education teams, and a number of other potential measures of quality in Longview's schools.

The Board concluded that it would like to investigate a program to measure the "output" of the Longview schools which could be used to help them establish financial priorities. It also asked the superintendent and the local education association to submit recommendations on what things should be measured and how to measure them. The Board also made it clear that they wanted to study data—not opinions, guesses, and hoped-for outcomes. As Mr. Crowley stated it, "We need to see production figures, not assumptions. We want to know what we've accomplished, not what we hope we've achieved."

The superintendent and local education association president have appointed you as a member of a professional task force to recommend what should be in such a program. What can you suggest that would meet the Board's requirements?

Whether or not one agrees that more pressure ought to be put on educators to produce objective evidence about the results of instructional programs, such pressure will be a fact of life in the 70's. Though the United States has great wealth, there will never be sufficient economic or human resources to meet all the demands of the many interest groups that make up society. Priorities must and will be established. Choices must and will be made. Therefore, there will be increasing pressure on educators to present concrete evidence that demands for more resources will result in specific gains. Fundamentally, this means that objective procedures to evaluate educational programs will need to be widely developed.

A third force, in reality a subfactor of the second, is the demand of urban parents, particularly those in the ghettos, that schools do a better job with their children. Without reviewing the arguments advanced on this issue, the fact remains that any standardized achievement measure places minority group children far behind the achievement level of the majority of American children. There may be various causative factors, but the parents of these children, as well as the general public, will not be satisfied with remedies which rely solely on bringing more funds into ghetto schools. Parents are demanding that current programs be evaluated objectively, that programs be dramatically improved, and that future programs be subjected to continuous evaluation.

In short, education has moved far past the point where the answer to low pupil achievement is to ask for higher teacher salaries and a reduction in class size. The ghetto parent, the legislator, and the public, like the man from Missouri, all say "Show me." General competition for the tax dollar; specific demands by parents and the public that educators demonstrate the value of their work; the technology that has developed planning, programing, and budgeting systems; and the increased sophistication of the tools available for evaluation all contribute to this demand for evaluation.

Both the forces contributing to the movement toward more rigid evaluation of the educational enterprise and the forces which have retarded critical examination of the outcomes of education are identifiable They include (a) the unfortunately slow evolution of education as a profession; (b) the tremendous growth in the size of the educational institution; (c) a defensive attitude on the part of educators themselves toward any criticism, however justified; and (d) the lack of valid criteria by which to evaluate educational outcomes.

Only in recent years has education become a profession. Historically, large numbers of teachers have been poorly trained and ill-equipped to assume professional responsibilities, one of which is self-evaluation. Today's teacher, a new breed altogether, is better educated, has a more positive attitude toward his field, and is ready to assume more professional responsibilities, including the job of self-evaluation.

For more than two decades educators have had to devote most of their energies to growth problems. Very little time remained even to think about evaluation. As with any service, a rapid increase in demand mitigates against the maintenance of quality. Today the principal growth problems are under sufficient control to free educators for the important task of evaluation.

Educators frequently react defensively to any criticism. When criticism has been leveled at the schools, educators have almost invariably tried to defend every practice, seemingly with the attitude that admitting one error would make the entire system collapse. This defensiveness can be partially explained as a reaction to past unjustified criticism of education.

However, given that some criticism is unfounded and that some critics would destroy the patient instead of finding a cure for his illness, this defensiveness or blind acceptance of what exists as best has done a disservice to education. Educators need to distinguish superficial criticism from valid criticism. Public education will not be destroyed if it is admitted that some of its critics are right. Public education stands to suffer far more if valid criticism is ignored.

Finally, the lack of valid criteria by which to evaluate the educational enterprise has also retarded evaluation. Research has proliferated in education, especially during the last two decades, but there are still many unanswered questions: What is a good teacher? What is the best method to teach reading? How do pupils learn to be good citizens? Is team teaching a valid methodological tool? What is the relationship between teaching and learning?

Three points need to be made regarding educational research. First, a great deal of valid research has been largely ignored by the profession. Some of the research findings in the areas of motivation, curriculum, and teacher effectiveness, for example, simply are not being utilized in practice. In short, much could be done with what has already been discovered. We have learned, for example, that positive reinforcement of learning achieves greater gains than the absence of reinforcement, but many teachers still use instructional methods which do nothing to reinforce pupils' learning. Curriculums are still being developed that provide no opportunities for students' learning to be reinforced with positive experiences. Simply stated, the teaching methods being used have not made learning a successful experience for students.

Second, education in general has suffered from the inability to ask the right questions. More often than not, educators have asked "frequency" questions rather than validity questions. That is to say, when considering whether or not a new method or practice should be adopted, too often these are the questions asked: Are other school districts using it? How many school districts are using it? If many others are following a practice, then obviously it is good. Only infrequently do educators address themselves to the much more difficult questions of evaluating the worth of a method. Instead they ask the wrong question: How many? What educators ought to ask is this:

Can we achieve our goals by using this practice?

Finally, although to many questions in education there are only tentative answers and to other questions there are no answers available at all, educators must nevertheless confront the challenge of evaluation. Some research is already available, waiting to be used, and more research can be done. Better questions need to be formulated and better criteria developed for answering them. Although the criteria problem is difficult, it is not insurmountable.

What requires evaluation? A quick answer would be—everything. A minimum list would include all aspects of the instructional program, instructional methods, extracurricular activities, staff, and pupils. It is relatively easy to list areas that require evaluation. For example, no one would oppose determining the effectiveness of an English program. The really difficult questions are—

1. How does one determine the effectiveness of any program?
2. Who should be involved in the evaluation process?

The initial step in any process of evaluation is the establishment of objectives for the program (or staff member) by which performance shall be measured. Too frequently educational objectives are stated in such broad terms that it is impossible to determine whether or not they have been achieved. How does one determine, for example, if a student "appreciates" classical music? Broad goals are useful in establishing global objectives, but specific objectives must also be established if any meaningful evaluation is to be done. Where possible, and this would apply especially to the cognitive learning areas, behavioral objectives should be established with the realization that learning is developmental and does not occur in isolated segments. Behavioral objectives should reflect the sequence of those developmental patterns.

There is an emerging debate over the wisdom of emphasizing cognitive development at the expense of development in the affective areas, with the focus of the argument centered around the potential creation of an automated value-free student. There are three substantial arguments against this position:

1. Affective behavior cannot be developed, except at the very lowest levels of development, without a firm basis in cognitive behavior.
2. Beginnings have been made in the development of affective behavioral objectives that are in concurrence with the development of cognitive behavioral objectives.

3. Even though means of evaluating affective behavior are not as sophisticated as means of evaluating cognitive behavior, they are available.

The major point here is that neither area can be developed in isolation; one cannot be evaluated without considering the other. The evaluation of affective behaviors depends on adequate development of cognitive behavioral objectives; the development of adequate affective behavioral objectives depends on what is held to be of value in the development of cognitive behavioral objectives. Some questions, then, for SCHOOLS FOR THE 70's are—

1. Can the cognitive behaviors held to be necessary in an educated person meet the requirement of being appropriate to the development of a value system in that person?
2. Can the cognitive behaviors being developed in students be supported as being necessary and essential in attaining the goals of a democratic society?
3. How do affective behaviors emerge in concurrence with the cognitive behaviors being learned in the schools?
4. Is there such a thing as a cognitive behavior that can be learned free of affective behavioral outcomes?

Mathematics is no doubt the most value-free system of organized thought processes developed by man. Once that system is applied to a problem, however, the system ceases to be value-free simply because problems in and of themselves have a value base and depend on affective behavior for their solution. Therefore, for every aspect of the educational program, for every classroom, for every subject matter field, and for every staff member, operational goals must be established. Moreover, they must be stated in such a manner that variation of interpretation is minimized. That is to say, objectives must be specific enough so that everyone can understand what they are and how one can determine whether or not they have been reached.

Establishment of operational objectives is no easy task. However, once that task has been completed it is much easier to develop criteria for determining whether or not the objectives have been achieved. This, the second step in the evaluation process, requires developing criteria based on the specific objectives, then the development of the instruments (tests, observations, and so forth) to be used for evaluation.

Unquestionably, the current thrust in education is toward the development and use of behavioral objectives in evaluating the total education program, including staff performance. This trend will continue in the 1970's, and there is every reason to believe that the process will be considerably refined as the decade progresses. Beyond this, however, looms the question of what roles should be played in the process by various groups. The question concerns not only which groups ought to be involved, but also which groups wish to be included, which can make a positive contribution, and how?

To some extent a number of groups are already involved in evaluating public education. Teachers, parents, students, boards of education, the general public, legislators, newspaper reporters, and a host of others, some legitimately appointed and some self-appointed, regularly make pronouncements on the effectiveness of various aspects of the school program as well as on the effectiveness of school personnel. The effectiveness and objectivity of these evaluations, since most of them are based on rather crude evidence, are important questions. It is relatively safe to state that most of the evaluative judgments, especially those made by laymen, have been both informal in nature and based on either flimsy or incomplete evidence. This again points up the need for the development of measurable objectives.

Nevertheless, while evaluation thus far has been accomplished rather primitively, it is being done, and more and more people are demanding formal responsibility and authority in the process. Using teacher performance as one of several examples, what role should each of the following play in evaluating teachers: administrators, supervisors, the teacher himself, other teachers, parents, students, the school board? It can be demonstrated that each of these people, or groups, to some extent already participates in the evaluation of teacher performance. However, in most instances lay evaluation, if used at all, is informal and used on a case-by-case basis.

One could argue that a profession should supervise itself and that laymen should not be involved at all. However, some lay evaluation has been used in the past, and laymen today (students and parents in urban areas being two prime examples) are demanding the right to evaluate teachers on a formal basis. The question may no longer be, Should laymen evaluate professional performance? Instead it may be, How can laymen participate effectively in the process? Regardless of the answers to these questions, the facts are clear, and they apply not only to teacher performance but also to other aspects of the educational program. First, evaluation of the profession must be accomplished. It can no longer be a slipshod or hit-and-miss affair, based more on faith than anything else. Performance objectives must be established, instrumentation developed, and a formal process of evaluation instituted. Second, decisions have to be reached on who shall be involved in evaluation, on what basis they shall be involved, and what authority they shall have. Fundamentally, this means answering questions regarding what the evaluation process should accomplish and what individuals or groups can contribute effectively to the entire process, when, and how.

"Let George Do It"

"But it's not fair to ask us to make a recommendation on a situation such as this!" protested Miss Snyder. "This is the job of the superintendent. He just wants to blame us for whatever might happen."

"No, that's not the case at all," said Mr. Dobbs. "He asked us for our advice and recommendations, but he hasn't indicated that we, or anyone else, should make the decision or bear the responsibility for it. He obviously would like our support, because it's a sticky situation. There's going to be unhappiness and heartbreak either way."

The executive committee of the Windam Education Association was moving into the third hour of its meeting. Dan Kingle, WEA president, sensed that emotions and tempers were about to overwhelm the business under consideration. He tried to restore calm.

"Let's pause a minute and try to summarize the problem. These are the facts as I understand them:

1. Lucy Cagle has been a fifth-grade teacher in the Windam schools for 27 years.
2. According to those who know her, she has been a conscientious and capable teacher most of that time.
3. She is now 59 years old, and hence, 6 years away from full retirement benefits and 3 years away from minimum benefits.
4. During the last few years there have been numerous complaints about Miss Cagle. You've examined a number of letters from parents of children in her room. These complaints range from "poor teaching" to alleged incidents of child abuse, both physical and mental.
5. Miss Cagle has undoubtedly been in poor health recently. She has used all her accumulated sick leave and is frequently absent from school.

6. Miss Cagle's doctor says that she is bordering on a nervous breakdown and has recommended that she resign from her teaching position.
7. Miss Cagle's teaching salary provides the only income for herself and her aged mother.
8. The superintendent, while concerned about her welfare as a person, feels that she is no longer able to function effectively as a teacher and that her continued presence in the classroom is detrimental to the welfare of children.
9. The superintendent has asked us for our recommendations about Miss Cagle. What are we going to say?"

The questions raised by Miss Cagle's case are complex, but they are only representative of a series of questions with which we must cope. And the answers will be different for various aspects of the school program. For example, parents may have one role to play in evaluating teacher performance, another in evaluating pupil progress, and still another in determining whether or not the broad, general goals of the instructional program are being met. Moreover, some judgments lend themselves easily to broad participation while others, such as whether or not a specific teaching method has been effective for a particular youngster, are judgments which should perhaps be made by only one or two people. Some judgments may be made effectively by both lay and professional people; others may be purely professional in nature. Evaluation then has to be approached with specific questions in mind regarding each factor to be evaluated:

1. Who should be involved?
2. Is it a professional decision?
3. What expertise is required?
4. When and how can various groups be included?

Another set of questions can be formulated around this fundamental question: At what level should evaluation take place? For teacher performance the response might be at the building level, or at most, at the school district level. However, at what level should evaluation of the effectiveness of the total school district program take place? Should this be done solely on the local level? Or should a state agency, such as the state board of education, be involved? Should our professional organizations play a role? What about the roles of the U.S. Office of Education and national assessment? What role should regional accrediting associations play? The latter, for example, have had, through their evaluation programs, an important effect on school districts and individual schools. Much of this effect has been positive, but have accrediting associations now become ends rather than means to better educational programs? Is it not time for the teaching profession itself to set standards and discipline malpractice?

The answers do not come easily, but the questions must be faced. Not only does evaluation embrace questions regarding who should take part at the school district level, but it also means answering questions about the level at which evaluation can best be accomplished. It means further that some aspects of the school program may be evaluated jointly by various agencies, associations, and governmental levels. The social studies program may be used as an example. The curriculum may include specific local objectives which would be evaluated only at the school district level. However, the state may have objectives for the program which both the local district and the state may wish to evaluate jointly. Finally, would there be general societal objectives for which the federal government might legitimately have a role in determining achievement? Or should the state and the federal governments, if they are to be concerned at all, be concerned only with establishing broad, general goals and permit the local school district to determine specific objectives as well as evaluate whether or not the objectives were achieved?

There is also the question of using outside agencies to evaluate any program at any level. When a group determines its own objectives, chooses its methods for reaching the objectives, and then also evaluates goal achievement, it is almost impossible to be objective. Perhaps, then, goal setting should be a task of the society as a whole; methodology should be the profession's task; and then certain types of outside groups should be employed to evaluate performance. Certainly part of the reason why students and parents are demanding power in this area is that they feel the profession has been less than objective in evaluating itself.

In summary, then, schools in the 70's will be called on to evaluate more critically every aspect of their performance. Basic questions to which answers must be found relate to who should evaluate what, and at what levels evaluation should be accomplished. To repeat:

1. Who should evaluate the achievement, assuming operational goals have been established, of an English class?

2. Is this the task of the teacher, the professional, alone?
3. Should his principal be involved?
4. Should his students have a voice?
5. What about their parents?
6. Should a state test be a part of the process?
7. Should the board of education be involved?
8. Should a national examination be used, too?
9. What is it that is to be examined?

These are some of the questions. Tentative answers are only beginning to be advanced.

"Merit Pay Revisited"

Helen Ross, chairman of the local education association's TEPS Committee, opened the meeting by saying, "A few teachers from one of our schools have asked us to consider a position statement on merit pay. There seems to be some feeling among those teachers that we should propose some sort of merit pay provision for our salary committee."

"We've been all through this before," said Elizabeth Allen. "I've been on this committee for 15 years, and every time merit pay has come before us we've opposed it. And so has our association. Merit pay just isn't workable. It never has worked and it never will."

"I'm not so sure about that," interjected Charlie Ronning. "Some school districts are using merit pay."

"They *say* they are," said Elizabeth Allen, "but most of those school districts really don't have a true merit pay plan. Either all teachers receive extra pay for merit or no teacher gets it."

Another teacher echoed Elizabeth's comments, then added, "Most school districts which have had merit pay have dropped it. That proves it doesn't work."

"Maybe all that proves is that no one has developed a workable system," said Charlie. "That doesn't mean merit pay itself is bad."

"Merit pay, to use your words, Charlie, is bad," said Elizabeth. "First of all, such a plan for paying teachers invariably lowers morale. Second, there is no objective method of evaluating teachers. It just can't be done. And, finally, teachers are teachers. One shouldn't be paid more than another, except, of course, for experience and level of training."

"Why should we pay more experienced teachers more money?" asked Charlie. "And why should a few more college credits entitle a teacher to more money? Does more experience and more training mean better teaching is going on?"

"Perhaps it doesn't," said another teacher, "but it's the best we have."

"I'm not satisfied with that," said Charlie. "In fact, the more I think about it, the more I believe this committee should go on record as favoring merit pay—at least in principle. All teachers aren't equally competent. The best teachers should be paid the most money. If we don't have a good method of evaluating teachers now, then we, as professionals, should take the lead in formulating one. After all, isn't that what professionalism is all about?"

EPILOGUE

This volume has focused on the decision-making process and those areas in which critical decisions will be made for the schools of the 70's. A point from Chapter 1 deserves reemphasis: regardless of whether or not educators actively attempt to solve the problems confronting them in the next decade, decisions will necessarily be made about those problems. To fail to act does not mean that those crucial problems facing schools in the 70's will not be resolved. By some manner or means, rational or irrational, answers will be found. The question is, What role will educators play in solving the problems that beset public education?

The authors hope that this discussion will serve as a catalyst for continuing dialogue among professional educators and laymen in an effort to come to grips with the issues outlined. If the volume serves this purpose, it has done its job.

To have tried to supply answers to the problems and questions posed would have been presumptuous. Instead, the purpose was to examine substantive issues in such a way that readers of the volume would find themselves better equipped to confront the future realistically. The decision-making process was presented as a vital mechanism for approaching and resolving the problems.

Educators can and must take leading roles in the solution of problems confronting the schools of the 70's. It is time for talk and action that lead toward some solid answers. This volume provides background information, as well as questions, for professional association meetings, board of education discussions, PTA meetings, and indeed, for those Friday afternoon coffee groups (perhaps *earlier* in the week would be better). In any event, this book is not designed to gather dust on a shelf. It was written to generate positive action on the part of all people who are genuinely concerned about education in the years that lie ahead.

SUGGESTED READINGS

There is a growing body of literature on the subject of decision making. The selected bibliography listed here, although far from exhaustive, is presented for those readers who may wish to pursue the subject of decision making in greater depth. Most of the listings also contain bibliographies which can be used for further reference.

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ABOUT THE AUTHORS

When asked where he originally comes from, William L. Pharis is most apt to reply, "From wherever I happen to be living." It is not the remark of a man disrespectful of the past, but rather that of a man deeply absorbed in the present and contemporary scene, characteristics clearly evident in this volume on *Decision Making and Schools for the 70's*.

Dr. Pharis has long been concerned with the quality of decision making in relation to educational programs and issues, and he brings to the topic an insight based on a wide range of experience. He is currently executive secretary of the National Association of Elementary School Principals, NEA, where he is actively engaged in improving the quality of education on a national level.

Before coming to Washington, Dr. Pharis was with Auburn University in Auburn, Alabama, where he was head professor, Department of Educational Administration and Supervision. For six years, he was a member of the faculty at the University of Nebraska.

A native of Gastonia, North Carolina, Dr. Pharis received his bachelor of science degree from Georgia Teachers College, his master's degree from George Peabody College, and his doctor of education degree from Columbia University. He began his career in education as an instructor at Georgia Teachers College and for six years was an elementary school teacher and elementary school principal in Columbus, Georgia. In 1958, he moved to New York City, where he served as assistant to the editor of *The School Executive* and lectured at Queens College.

Dr. Pharis' writings have appeared in numerous educational journals. He is also the author of *In-Service Education of Elementary School Principals* and coauthored *Careers in Education, Decision Making and the Elementary School Principal, Six Simulated Case Studies,* and *NCPEA: The Second Ten Years.*

Coauthors Lloyd E. Robison and John C. Walden are both former colleagues of William Pharis at Auburn University, Auburn, Alabama. Both are natives of Illinois and began their careers as classroom teachers.

Lloyd Robison recently wrote *Human Growth and Development,* published by Chas. E. Merrill in 1968. His university teaching experience has been at State University College of New York at Buffalo,

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Florida Atlantic University at Boca Raton, and Auburn. His B.S. and master's degrees are from Southern Illinois University, Carbondale, and his doctorate is from Auburn.

John Walden spent most of his early years in California, receiving his B.A. from UCLA, his master's degree from California State College at Los Angeles, and his doctorate from the Claremont Graduate School. He has taught at Auburn since 1966, specializing in school law, personnel administration, and the politics of education. He has also published articles in the professional journals and has worked extensively with the Auburn University Center for Assistance with Problems arising from school desegregation. Obviously, all three authors have had more than a passing acquaintance with the problems of educational decision making.

OTHER BOOKS ALREADY PUBLISHED IN THE SCHOOLS FOR THE 70'S SERIES

The Study of Curriculum Plans by Arlene Payne. Criteria for the analysis of written curriculum plans, with application to a sample document. 44 pp. $1. NEA Stock No. 381-11862.

The Practical: A Language for Curriculum by Joseph J. Schwab. Advocates emphasis on the practical, the quasi-practical, and the eclectic (instead of the theoretical) for a renewal of the field of curriculum. 46 pp. $1. NEA Stock No. 381-11934.

A Selected Guide to Curriculum Literature: An Annotated Bibliography by Louise L. Tyler. Discusses the process of annotation and major areas of curriculum, with extensive annotations of more than seventy key books and articles. 142 pp. $2. NEA Stock No. 381-11628.

Values and the Curriculum: A Report of the Fourth International Curriculum Conference edited by William G. Carr. Includes speeches and reactions by conference participants. 150 pp. $3.75. NEA Stock No. 381-11936.